A GEOGRAPHICAL

# DESCRIPTION

OF THE

## Coasts, Harbours, *and* Sea Ports

OF THE

## *Spanish West-Indies*;

PARTICULARLY OF

## PORTO BELLO, CARTAGENA, and the Island of CUBA.

WITH

OBSERVATIONS of the CURRENTS, and the VARIATIONS of the COMPASS in the *Bay* of MEXICO, and the *North Sea* of AMERICA.

TRANSLATED FROM

A Curious and Authentic Manuscript, written in *Spanish* by DOMINGO GONZALES CARRANZA, his Catholick Majesty's Principal Pilot of the *Flota* in *New Spain*, Anno 1718.

To which is added,

An APPENDIX, containing Capt. *Parker*'s own Account of his Taking the Town of *Porto Bello*, in the Year 1601.

WITH

An INDEX, and a New and Correct CHART of the Whole;

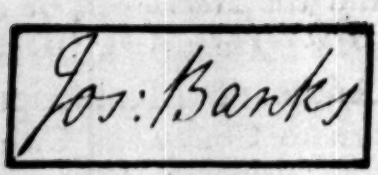
AS ALSO

Plans of the HAVANNAH, PORTO-BELLO, CARTAGENA, and LA VERA CRUZ.

——— *Fas est & ab* HOSTE *doceri.*

*LONDON:*

Printed for the Editor CALEB SMITH (Inventor of the New *Sea-Quadrant*) at his Office, for Insuring Ships and Merchandize, in *Castle-Alley, Cornhill:* And sold by Mess. *Strahan, Meadows, Brotherton, Clarke,* and *Willock,* Booksellers, in *Cornhill*; *Payne* in *Pope's-Head Alley*; *Innys* in *St. Paul's Church-yard*; *Robinson* in *Ludgate-street*; *Manby* on *Ludgate-Hill*; *Senex* and *Whiston* in *Fleet-street*; and Mr. *Nourse* without *Temple-Bar.* M.DCC.XL.


Jos: Banks

TO THE

MERCHANTS *of* Great Britain;

THE

COMMANDERS *of* SHIPS;

*And* OTHERS;

*Who were pleaſed to* ſubſcribe *for this* Treatiſe.

GENTLEMEN,

THE ready and generous *Encouragement* you gave to the *Propoſal* for publiſhing this Work, is an *Inſtance* of your laudable *Zeal* and *Inclination* to promote every Thing, which has a *Tendency* to improve the *Navigation* and *Commerce* of theſe Kingdoms: I therefore beg Leave to *offer* it to your *Patronage*;

*tronage*; and to acknowledge, at the ſame Time, the *Obligations* I am under for the kind *Reception* it met with at your Hands.

Had ſome Perſons in *high Stations* been influenced by a like *Public Spirit*, this Treatiſe might have ſeen the Light time enough to have been of conſiderable *Uſe* and *Benefit* to thoſe brave *Commanders* of his *Majeſty*'s Ships, who are now in *America*; and probably, that *Damage* which Admiral *Vernon*'s Ship, the *Burford*, lately ſuſtained, by running upon a Rock off Point *Canoa*, † might have been prevented, had they read the particular *Cautions*, given in the 66th and 67th Pages hereof, for avoiding it: However, the *Publication* at this *Juncture*, we hope, is not *unſeaſonable*,

† Vide *London Gazette* of *Saturday May* 24. to *Tueſday, May* 27.

*able*, ſince his *Majeſty* has been pleaſed to *declare*, that He "is now making "Preparations for carrying the War "on in the moſt proper Places, and "in the moſt vigorous and effectual "manner;" from which *Intimation*, it is hoped, the *Spaniſh Weſt Indies*, will be the Scene of *Action*; and then I make no Queſtion, but the *Obſervations* and *Directions* contained in this *Book*, will be found extremely *ſerviceable* to *Thoſe* who may be ordered *thither*, upon any *Enterprize* or *Expedition* whatſoever.

To you, GENTLEMEN, the chief *Promoters* of our *Trade* and *Navigation*, this *Kingdom* is indebted for it's *Increaſe* of Wealth, Power, Strength and Honour: To your noble and ever memorable *Defeat* of that worſt of Projects, the Grand *Exciſe-Scheme*, we owe the *Freedom* of our *Commerce*,

and the *Preſervation* of our *Liberties*; and whatſoever *Glory* the *Britiſh Arms* may acquire; whatever *Advantages* the Nation may obtain by a future *Peace*; the *Cauſe* of All muſt be *attributed*, in a great Meaſure, to your juſt, frequent and loud *Remonſtrances* againſt the *repeated* Inſults and Injuries of *Spain:* Wherefore, as your *Proſperity* and the *Intereſt* of your Country are *inſeparable*; I ſhall include them *Both* in one *Wiſh* for your *Happineſs* and *Welfare*; and am, with the utmoſt *Reſpect*,

GENTLEMEN,

*Your moſt obliged*

*And moſt obedient*

*Humble Servant*,

CALEB SMITH.

# THE PREFACE.

THE Tranſlator *of the following Sheets, thought it not proper to confine himſelf to a literal Verſion; but has endeavoured to expreſs the* Senſe *and* Meaning *of the* Author, *as truly and intelligibly as he could; to which End, he has frequently taken the Liberty to* vary *from the* Expreſſion, *though not from the* Purport *of the Original; and ſome few* trite *Obſervations of no Uſe have been entirely* omitted.

*It may not be amiſs to mention, that the* Gentleman *who brought the* Original *into* England, *was a* Priſoner *for ſome Time at the* Havannah, *where he procured it in* Manuſcript, *and preſented it to the* Editor, *as a Teſtimony of his Friendſhip and Reſpect.*

*This* Treatiſe *was peruſed by very good and able Judges, who thought it contained many* uſeful *Informations and Inſtructions, for ſuch*

*as ſail in the* Seas *of* North America, *and the Bay of* Mexico; *wherefore, 'tis hoped, the* Publication *hereof will prove* acceptable *to all* Sea-faring Gentlemen, *for whoſe* Uſe *and* Advantage *it is principally deſigned; and though it may ſeem leſs* entertaining *to many others; yet the* Curious, *and ſuch as delight in* Geography, *may find Matter of* Inſtruction; *and I am perſwaded, the main* End *and* Deſign *of it, which is, the* Advancement of Navigation, *will be accepted and approved by* All, *who regard the* Publick Good; *more eſpecially, as it tends to* improve *that valuable* Branch *of it, for the* Freedom *whereof it was thought needful to enter into a* War *with* Spain; *in order to ſecure and confirm our* Right *of navigating in thoſe* Seas *that are here deſcribed, without* Interruption, Search *or* Viſitation.

*That the preſent* War *may be* crowned *with* Succeſs; *and quickly end with a firm* Eſtabliſhment *of* This Right, *and every* Other, *which the* Britiſh Nation *has too long ſuffered to be* infringed; *is, I hope, the Prayer of every* true Engliſhman, *as well as of the*

EDITOR.

Caſtle-Alley, Cornhill,
May *the* 29*th*, 1740.

# ADVERTISEMENT.

THIS *Treatiſe appears to have been left* unfiniſhed *by the* Author, *and 'tis much to be wiſhed* He *had* compleated *it according to his Plan: However, we hope, that ſome of thoſe* ingenious *Mariners, with which our* Navy *now abounds, will have an* Opportunity *of furniſhing Us with ſuch proper* Obſervations, *from their Journals, as may be ſufficient to perfect the Work.*

---

*AS the* Editor *has been* deſired, *by ſome Gentlemen, to* publiſh *this Treatiſe in the* French *Language; He propoſes to put a* Tranſlation *thereof to the* Preſs, *ſo ſoon as he has received* 300 Subſcriptions; *at the Rate of* three Shillings *for each Book.*

Quelques Meſſieurs François ayant ſouhaité d'avoir une Traduction de ce Livre en leur Langue: Je me ſuis determiné à la faire faire, & à le mettre au jour, auſſitôt que j'aurai obtenu 300 Suſcriptions, à trois Chelins chaque Livre.

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# CHAP. I.

## *Containing a Deſcription of Part of the Bay of* Mexico, *with its* Shoals, *and the Coaſts of* New Spain, New Andaluzia, *and* New Biſcay.

THE *Courſes* from one Port to another, when diſcover'd by Experience, are the *Light* of Navigation; for they teach and direct the Rout or Way, that is to be taken to make a Voyage with Succeſs: On which Conſideration, in order to illuſtrate the Chart, or Map, we think proper to deſcribe, in Writing, the Courſes to and from the principal Ports at all Seaſons, as well as the ſeveral Signs and Marks of the Shoals and Coaſts; for the better Security and Direction of Seamen.

The

The principal Port of *New Spain*, in this first Deſcription, is, *La Vera Cruz*, and the Caſtle of *St. Juan de Ulva*, the Key of Traffick of the ſaid Kingdom; wherefore I ſhall begin from thence to deſcribe the Courſes, found out by the Experience of the moſt ſkilful and able Men, that have been known to navigate in this Bay, as well as on all the Coaſts of *America*; from whom I have received all the Inſtruction, I am Maſter of on the preſent Subject.

*Of the* Winds *and* Weather.

The Seaſons, Winds and Weather, in the Bay of *Mexico*, are as follow: The *Trade Winds* reign and blow generally from *March* to *September*, from the N. E. to the S. E. and the Weather is pleaſant and ſerene. The *Norths*, or *North Winds* blow from *September* to *March*, and the Weather is ſtormy, but moſt tempeſtuous in the Months of *November*, *December* and *January*, when we have violent Storms and hard Gales of Wind, for fifteen and twenty Days ſucceſſively; yet ſometimes, if it be calm, the *Trade Winds* return, and the Weather grows ſerene; otherwiſe, if there were no ſuch Intermiſſions, it would be impoſſible to navigate in this Bay, in the Time of the *North Winds*; for even the Currents alter in the ſame Manner.

On

*Of the* Tides.

On this Coaſt, and within all the *Windward Iſlands*, the *Tides* are irregular: The Ebbs and Floods are very perceptible at the Full and Change of the Moon; and ſometimes in the Quarters alſo, but never ſo much as in the Conjunction and Oppoſition.

In the Rivers likewiſe the *Tides* ebb and flow every Day, yet irregularly; and when the North Wind blows, the Sea runs towards the Coaſt; which cauſes the Water to riſe higher near the Shore.

Having premiſed thus much: Let us ſuppoſe that we came from *Old Spain*, or the *Havannah*; and are now ſailing from the Soundings of the Shoals of *Campechy*, as far as *La Vera Cruz*; paſſing thro' the Soundings of the *Alacran*, and coming out between the *Triangulas* and the new Shoals of *Manoel Antonio*; or elſe between the ſaid Shoals and the Iſlands of *Arenas*: Firſt, then, if you are bound for *La Vera Cruz*, from *Old Spain*, or the *Havannah*, in the Time of the *North Winds*; having paſs'd the *Trianguls*, and the new Shoals, and the Iſlands of *Arenas*; as ſoon as you come out of Soundings, you muſt ſteer your Courſe W.S.W. in order to make *Punta delgada*, or the Mountains of *Villa Rica*; the ſaid *Punta* lying in the Latitude

*The Courſe from the Beginning of the Sounding of* Campechy *as far as* La Vera Cruz *in Winter.*

titude of twenty Degrees; and the Mountains in nineteen Degrees forty Minutes; when you are in this Latitude, about two Leagues from Land, you'll be in the Soundings of thirty-five or forty Fathoms; and at a League from this Land there are twenty-five Fathoms. From the ſaid *Punta* the Coaſt runs towards the South, as far as *Sampuala*, and you muſt ſail along the ſaid Coaſt, 'till you come into twenty Fathom Water, where the Bottom is looſe and chalky Ground; but if you meet with Sand and Stones, you are upon *Chacalaca* or *Sampuala*, which lie ten Leagues to the Leeward of *Punta delgada*; and from theſe Soundings, you muſt ſteer your Courſe towards the S.S.E. 'till you come into ſixteen Fathoms; after which you muſt come no nearer the Land, for then you are in the Channel; and being off *Old Vera Cruz*, the River there commonly runs very ſtrong, and in calm Weather throws the Ship out, upon which Account, you muſt endeavour to keep ſtill in ſixteen Fathoms, and continue your Courſe along the Coaſt, towards the S.S.E. in the ſame Channel, having the Caſtle of *St. Juan de Ulva* right a-head, 'till you arrive off *Punta Gorda*, where you'll meet with a muddiſh Bottom, and the Soundings will diminiſh to five Fathom,

thom, in the Channel that lies between the *Gallega* and the *Reſtinga*, or Point of the *Caleta*, or Cove of *La Vera Cruz*; and at entering the Channel, if you meet with Stones in your Soundings, you incline to the *Gallega*; but if you meet with Gravel, you incline to the *Caleta*; for the Bottom of the Channel itſelf which lies N.W. and S.E. is Mud, and you muſt anchor near the Caſtle.

*In Summer Time.*

If you make your Voyage in the Time of the *Trade Winds*, and come through the ſaid Shoals, you muſt ſteer your Courſe S.W. 'till you come into the Latitude of nineteen Degrees and ten Minutes North, in which lies the Port of *La Vera Cruz*; and from thence endeavour to find it by ſteering Weſt. Within Sight of it, you'll raiſe the *Gallega*, which lies a League to the North of the Caſtle, 'till you ſee the *Torre de la Merced*, or *Tower of Mercy*, in one with the ſaid Caſtle, (which is the higheſt Tower in the City:) If you are a League and a half or two Leagues off at Sea, after ſeeing the *Gallega*, you muſt ſteer S.E. keeping the *Punta Gorda* right a-head, 'till you diſcover the ſaid Tower by the Weſt-ſide of the Caſtle, and then direct your Courſe towards the City to gain Sight of the *Piedras de la Gallega*,

you'll ſail within a Muſquet-ſhot of them, leaving them on the Larboard Side, 'till you diſcover the Ovens or Lime-Kilns, by the Land Side of the Caſtle; which Lime-Kilns are about half a League to the S. E. of the Tower of *Mercy*; and appear like Hummocks; as ſoon as you ſee the ſaid Oven or Kilns, ſteer directly towards them, keeping the ſaid Caſtle of *St. Juan de Ulva* on the Larboard Side; for by this Means you'll enter the *North* Channel, and keeping on the ſame Side, you'll ſail S. E. by S. in five Fathom Water for about a Mile into the Body of the Channel.

*From* Campechy *to* La Vera Cruz *in* Winter.

If you ſail from the Port of *Campechy* in the Time of the Northerly Winds; you muſt direct your Courſe to the W.N.W. becauſe the Currents ſet to the *South*; and ſteering this Courſe you'll come in ſight of the Shoals of the *Arcas*, along which you muſt coaſt by the North Side; and as ſoon as you are out of Soundings, change your Courſe to the W. which will certainly bring you into the Latitude of *Punta delgada*; but when you are got upon the South Side of the aforeſaid Shoals of the *Arcas*, you muſt ſteer towards the W.N.W. 'till you are in Sight of the ſaid *Punta delgada*; from which you are to ſail for

for the Port of *La Vera Cruz*, in the manner we deſcribed above.

*From* Campechy *to* La Vera Cruz *in* Summer.

If you ſail from the Port of *Campechy* to *La Vera Cruz*, in *Summer* Time; direct your Courſe toward the W.S.W. 'till you are out of Soundings, through which you have paſſed on the South Sides, and then direct your Courſe towards the Weſt 'till you are in the Latitude of the Port of *La Vera Cruz*, which lies in nineteen Degrees and ten Minutes North; but if you ſhould loſe Soundings in a leſs Latitude, and ſteer W. yet you'll find the Latitude increaſing, becauſe the Currents at this Time ſet toward the N.W. beſides ſome Allowance is to be made for the Variation of the Needle; and continuing your Courſe in the ſaid Latitude of nineteen Degrees and ten Minutes, you'll fall in with the Port of *La Vera Cruz*, as aforeſaid.

*Without the Shoals of* Campechy *to* La Vera Cruz *at any Time.*

To go to *La Vera Cruz* without all the Shoals of the Soundings of *Campechy*, you muſt ſail into the Latitude of twenty-five Degrees, till you think you have got paſt *El Negrillo*, or W. of its Meridian; and from thence in Time of *North Winds*, direct your Courſe S.W. and endeavour to make *Punta delgada*; but in Time of *Trade Winds* you muſt ſteer S.S.E. 'till you reach the Latitude of nineteen

Degrees and ten Minutes, and from thence W. to find the Port of *La Vera Cruz*; to which it muſt be obſerved you may alſo come by the S. E. Side of the Caſtle in Summer-Time, if your Ship draw ſomewhat leſs than four Fathoms of Water; for altho' the Channel of the Weſt or Lee-ſide have ſix or ſeven Fathom, yet the Entrance of the Port, on the S.E. ſide, has barely four Fathom and a half; but Ships of the Draught aforeſaid may come in between the Iſland *Sacrificios* and the Main Land, where there is a Channel of ſeven and eight Fathom Water, that runs N. and S. between the Iſlands of *Verde* and *Sacrificios*; in the Middle is a Ridge of Rocks with Breakers, called *los Paxaros*, between which and the ſaid Iſlands there are Channels, but only fit for ſmall Veſſels or Frigates; and between the Iſland *Verde* and the Iſland of *Blanquilha*, lie the Shoals of *Anegada*; which make ſome Channels with thoſe Iſlands, where a Ship may ſail, and both theſe Channels have ſix Fathom Water: The Channels between the Iſland *Verde*, and the *Anegada*, run E. and W. and between the *Anegada*, and the Iſland *Blanquilha* lie W.S.W. and E.N.E. and the other Channels between the aforeſaid middle Cauſeway or Ridge, the Iſle *Sacrificios* and Iſland

Iſland *Verde* lie N.W. and S.E. Between the great and little *Gallega*, is a Channel for ſmall Veſſels, which lies N.E. and S.W. and within this lies the Shoal or Flat about a Cannon-ſhot to the S.E. of the Caſtle of *St. Juan de Ulva*, and E. and W. with the Mole of *La Vera Cruz:* On the Out-ſide of the Shoal there is five Fathom Water; this Shoal is very dangerous, and has Breakers only when there is a great Swell, or bad Weather.

*From* Vera Cruz *to* Campechy, *at all Times.*

If you ſail from the Port of *La Vera Cruz* to that of *Campechy*, in Summer-Time, endeavour to go by the Coaſt of *Guazaqualcos*; which Coaſt lies E. and W. and at theſe Times, as the Wind is apt to vary between the N.E. and S.E. you'll get ſooner to the Eaſtward, without Occaſion to tack the Ship often, and above all you are not to exceed the Latitude of nineteen Degrees and a half, for by this Means you'll run into the Soundings on the South Side of the *Arcas*, which will bring you in Sight of the Coaſt; along which you muſt ply to Windward to the Port of *Campechy*; but if you ſail from *La Vera Cruz* in Time of the Northerly Winds, you muſt ſteer N.E. 'till you are in twenty or twenty one Degrees of North Latitude, and there, if you meet with a North, you muſt ſteer E. to get

into Soundings within the Shoals, if it be in the Day-Time; but if you meet with Sand or Stone in forty or forty-five Fathom Water, you are near the Shoals, and may ſail into ſight of them, after which you muſt take care to avoid them, as much as poſſible, paſſing by them where the Sea ſeems moſt favourable; but if you ſound in the Night-Time and find the ſaid Gravel or Stone, ſteer towards the South, 'till you meet with Mud, which you'll have in thirty three Fathom; and from thence you may ſail E. where you'll never fail of ſtill finding Mud, and may continue this Courſe ſafely into twenty-ſix and twenty-ſeven Fathom, for you are out of Danger and in the Channel, ſo long as you have Mud, therefore care ſhould be taken to ſound every half hour: As ſoon as you come into twenty-five Fathom, and find a ſandy Bottom, you may be aſſured that you have already got within the Shoals, and have gone through between the *Triangulas* and the *Arcas*; and that by this Courſe you are got into twenty-one Degrees of *North* Latitude; but if you ſhould ſound in the twentieth Degree of Latitude, and find Mud in the Night-Time with forty-five Fathom Water, you muſt ſail E. and take care to ſound every Hour, and if you find the Bottom

Bottom Sand and Mud, you are not two Leagues from the *Arcas*, on the S.W. Side of them; but if you find Stone, you are upon them; if you find Gravel and thirty Fathom Water, you are to the W. of them; but if you take up looſe Mud, at fifty or ſixty Fathom, and find the Soundings leſſen of a ſudden, you are to Leeward, and upon the Coaſt of *Tavaſco*, or of *St. Peter* and *St. Paul*; from whence you muſt keep off, and go thro' the Shoals to *Campechy*, directing your Courſe according to the Soundings, as we before deſcribed.

*From* La Vera Cruz *to* Havannah *at all Times.*

If you ſail from *La Vera Cruz* to *Havannah* in Time of the *North Winds*; ſteer your Courſe towards N. E. and N. N. E. to gain your Latitude before the *North* blow ſtrong upon you, and if it catches you in the Latitude of twenty-two Degrees, ſail E. 'till you are in Soundings, and if you find forty Fathom or more in the Beginning with Mud at the Bottom, and continuing your Courſe find the Bottom Stone in forty Fathom, you may conclude you are then upon the *Trianguls*, or new Shoals of *Manoel Antonio*; but if you ſhould find forty Fathom and the Bottom Sand, you are upon the Iſlands of *Arenas*, therefore endeavour to keep the Mud 'till you meet with twenty-five Fathom and Sand,

when you'll be upon the Shoals, which you must take care to avoid, in the Time of the *North Winds*, and you'll come out of Soundings between the *Negrillo* and the Island of *Vermexa*, steering as far N. as you well can, which will bring you into thirty Fathoms, and then for two or three Hours you'll find no Alteration of the Soundings; after that, for an Hour or an Hour and a half you'll find forty and forty-five Fathom, and in a little time you'll get no Ground with your Lead; upon which direct your Course towards the N.E. 'till you gain the Latitude of twenty-six Degrees, and in Case the North still blows, you must steer to the S.E. which will carry you clear out of the Soundings of the *Alacran*.

But if you sail from *La Vera Cruz* to *Havannah* in Summer-Time, steer your Course 'till you come into the Latitude of twenty-five Degrees; then sail E. into the Soundings of *Las Tortugas*, and from thence run over for the *Havannah*, as will be directed in due Place.

*Advertisement concerning the Port of* La Vera Cruz *in dark Days.*

The best Mark to know any Port by, when you are sure of its Latitude, is the Height, Form, and Situation of the Land near it; but many have not believed this Truth,

Truth, when coming near the Coaſts, in hazy Weather, they have ſeen the Land appear under a different Form, and with different Marks, from what they ever obſerved before; and ſo find themſelves perplexed; which indeed is no Wonder, if they have not made proper Obſervations of the Form and Height of the Land, which is the trueſt Guide: On this Account I very much approve of the *Portugueze* Axiom, which ſays, *If you would know the Land, go to it.* If it ſhould happen in ſailing for the Port of *La Vera Cruz*, that we ſeek the *Punta delgada*, and meet with it in a foggy Day, when the Land is all obſcure, and cannot be ſeen as in clear Weather; then, to overcome theſe Difficulties, if you are upon the ſaid *Punta delgada*, and cannot well diſtinguiſh its Signs, keep cloſe in to the Shore, for if you be near it, you'll find that the Coaſt to Windward runs towards the N.W. and the Leeward Coaſt towards the S.S.W. If you are off *Bernal*, you'll find the *Punta delgada* to the North; and from *Bernal* to Leeward the Coaſt ſtretches to the South as far as *St. Puala*; and upon this Coaſt, as ſoon as you are two or three Leagues from Shore, you'll find twenty-five or thirty Fathom of Water;

Water; if you find Sand, you are upon the Plains of *Almeria*; but if Mud, you are off *Punta delgada*; if you meet with looſe Fuller's Earth, you are between *Bernal* and *Chacalaca*; and at this Place the Land, tho' it may be hazy and obſcure, will appear full of high and large Mountains; and notwithſtanding the Mountains of *St. Martin*, and the *Pan de Miſapa*, may appear alſo to Leeward of the Port, yet theſe Mountains are much leſs; and beſides, no Part of this Coaſt lies N. and S. and altho' there is Land that runs N.W. and S.E. it is low Land. To Leeward of *Alvarado* there is thirty Fathom of Water, with Gravel about a League's Diſtance from the Shore.

If you are at Sea and about four Leagues off the ſaid Port of *La Vera Cruz*, you'll hardly ſee the Land in hazy Weather; but you'll have Soundings in forty Fathom of Sand and Gravel, but in ſome Parts rocky and muddy; and all this ſort of Bottom is found from the Shoals of the *Gallega*, to the *Cabezas de Alverado*, which is all over Iſlands and Rocks, where you'll meet with Stone when you come into twenty-five or twenty Fathom; by which Marks the ſaid Places are known.

If

If it be in the Night Time, for it is in the Night very difficult to enter this Port of *La Vera Cruz*, you'll govern your ſelf according to the Marks of this Port, which are deſcribed elſewhere, along with the particular Marks of other Ports; on which account it will be highly neceſſary to have the beſt Maps or Charts, to know how to diſtinguiſh the Coaſts: In clear Weather, if you ſhould be upon the ſaid Coaſt of *La Vera Cruz*, the Signs and Marks are well known as follow: The Caſtle of *St. Juan de Ulva* lies almoſt E. and W. with the *Volcano de Orizaba*, which is thirty Leagues within the Land, and is a burning Mountain, very high and cover'd with Snow; ſome Perſons have ſeen it other 30 Leagues off at Sea, and it is the beſt Mark to this Port; for as ſoon as you ſee the ſaid *Volcano*, if it lie towards the W. you are to the E. of the Port; and if it lie to the S. W. you are to Leeward of the Port; but if it lie to the N. W. you'll be to the Windward of the ſaid Port and Caſtle.

*Advertiſement concerning the Port of* La Vera Cruz *in clear Weather.*

*The Caſtle of* St. Juan de Ulva, *and the* Volcano de Orizaba *lie by the Courſe of* 73 *Degrees* 30 *Minutes from* S. *to* W. *and the ſame from* N. *to* E.

From the ſaid *Volcano* towards the N. E. run out ſome thick and long Mountains, with a ſmall Hill or Eminence in the Middle; which from its Form is called the Trunk

of

of *Perole*, and from this Hill they run to the *Punta delgada*, with which they lie N. W. and S. E.

The *Punta delgada* is a Point or Skirt of the ſaid Mountains; tho' it does not ſeem to appear ſo when you are E. and W. with it, but all Main-Land; yet when you come to the North or South Side of it, then it very plainly appears to be a large Skirt running out from the Mountain, and diminiſhing till it terminates in the Sea in a plain and narrow Point. The Mountains of *Villa Rica* are three Mountains, of a moderate Height, lying upon the Coaſt to Leeward of *Punta delgada*, and terminate at *St. Puala*, and run from Eaſt to Weſt. The Weſtermoſt is the largeſt, and the Eaſtermoſt is the leaſt; each of which narrows away into a Point like a Fryar's Hood, and all three together have the ſame Appearance, by which Mark they are well known. From the aforeſaid *Volcano* to the S. W. the Mountain begins to diminiſh till it diſappears; and from *Old Vera Cruz* to the Mountains the Coaſt is low and hummocky, and lies N. W. and S. E. Along this Shore there is no high Land, except that which appears within the Land, and runs

runs, as we ſaid before, from the aforeſaid *Volcano* towards the S. W.

The Mountains of *St. Martin* are three, running from E. to W. and the firſt falls down upon *Roca Partida*, by the Sea Coaſt, which being the greateſt, has been a *Volcano*, or burning Mountain; the middle one is of a moderate Height, with an Eminence or Hill in the Middle, that appears in the Nature of a Watch Tower; the laſt to the W. is round, running out with a Skirt or Declenſion towards the Weſt, where it diminiſhes to a Point: All three are very well known by the Separations or Breaks between them, and by their not being ſo great as thoſe of the *Volcano de Orizaba*, which when lying E. and W. with the Mountains of *St. Martin*, ſeem to be all one Mountain, ſave only that there extends towards the South, a long even Mountain; and at the Diſtance of ſix Leagues there appears another ſquare Mountain reſembling a Smith's Anvil, which they call *El Pan de Miſapa*, and by it this Leeward Coaſt is well known; for from the *Pan* of *Miſapa*, the Mountain diminiſhes towards the S. W. within the Land, 'till it terminates in low Land; and ſuch is all the Coaſt of *Miſapa*, on the Eaſt Side.

The

*Coaſts of* New Biſcay *not inhabited.*

The Coaſts of *New Biſcay*, which are on the North Side of the *Mexican* Bay, are all even low Land, and marſhy; they run from E. to W. beginning from the Lake of *St. Bernardo*. This Coaſt is every where ſhallow, for in ſome Places we find Soundings fifteen and twenty Leagues off at Sea, and good Anchoring Ground. From the *Rio Baxo* as far as Cape *Lodo*, all the Coaſt is likewiſe low and ſhallow, having but two and three Fathom of Water; and at ſeven or eight Leagues from Land, it ſcarcely can be ſeen from the main Top. The Port belonging to it, is that of the *Lake* or *Laguna de la Aſcencion*, where the Channel is but two Fathom deep, and has an Iſland in the Middle.

*Of the Lake call'd* Laguna de la Aſcencion.

*From the Lake of* St. Bernardo *to the Coaſt of* New Andaluzia *not inhabited.*

The Coaſts of *New Andaluſia*, which are on the Weſt Side of the *Mexican* Bay, lie N. and S. reaching from *Del Rio Morpata* to the Lake of *St. Bernardo*, which is a very large and ſpacious Bay. Its Entrance lies N.W. and S.E. and is four Fathom deep: In this Bay the *French* endeavour'd to ſettle, but within a Year, of a hundred Families that came, the major Part died; ſo they attempted it no more: It is low Land, and very Marſhy. Upon the Coaſt are ſome Creeks

Creeks proper to anchor in; but fifteen and twenty Leagues to the Sea it is very deep: Within a League of the Land we find ten or fifteen Fathom; and all the Coaſt runs in this manner, with five Fathom cloſe to the Shore.

*Coaſts of* New Spain *inhabited.*

The Coaſts of *New Spain* run from the River *Morpata*, and Lake of *St. Bernardo*, as far as *Old Vera Cruz*; and from thence ranges South Eaſtward to *Miſapa*; and from thence to the Lake of *Terminos*, which is on the South Side of the *Mexican Bay*, it runs E. and W. that is, taking the Direction by the general Courſe of the Land; for from one Part of the Coaſt to another, I ſhall for the moſt part leave it to your ſelf to obſerve how the particular Creeks, and Capes, lie in reſpect of each other; as alſo their Latitudes, and the Diſtances between them; tho' in ſome Places, I ſhall take care to deſcribe the Diſtances, where it is neceſſary they ſhould be known.

The River of *Morpata* is a great, rapid, and unnavigable River; and from it to that of *Tampico* makes a Bay towards the S S. W. in the Midway between theſe Rivers, within the Land, is one ſingle high Mountain, ranging from N.W. to S.E. called the Moun-

Mountain of *Tama Olimpa*; and from hence to the River of *Tampico* is low Land, with Banks of Sand, extending towards the S.E. and to the South of *Rio de Tampico*, is a great Bank in Length about four Leagues; at the Beginning of which, towards the North, is the River of *Tampico*; this said Bank is called *La Cuchilla*, being the Mark for *Tampico*, which is inhabited by Fishermen; to which several Frigates, and Boats, carry Salt from *Campechy*. The Channel here is large, and its Entrance lies towards the N.W. It has three Sand Banks, and a Bar, upon which we find but fifteen *Palmos* or ten Foot Water.

*River of* Tampico.

From the said River of *Tampico* to *Cabo Roxo*, the Land lies N.W. and S.E. and when you are past the great Sand Bank of the *Cuchilla*, the Coast runs low, with more Sand Banks, to *Cabo Roxo*, which is sandy and level; between this *Cabo Roxo*, and the said Bank of *Cuchilla*, there are two Sand Banks higher than the rest, resembling Sugar Loaves, called *Diablos de Trias*; near which are two *Indian* Towns, and a Place for Ships to take in Water, called *Charca*; and between this Coast of *Cabo Roxo*, and the Coasts within, there is a great Lake,

Cabo Roxo.

which

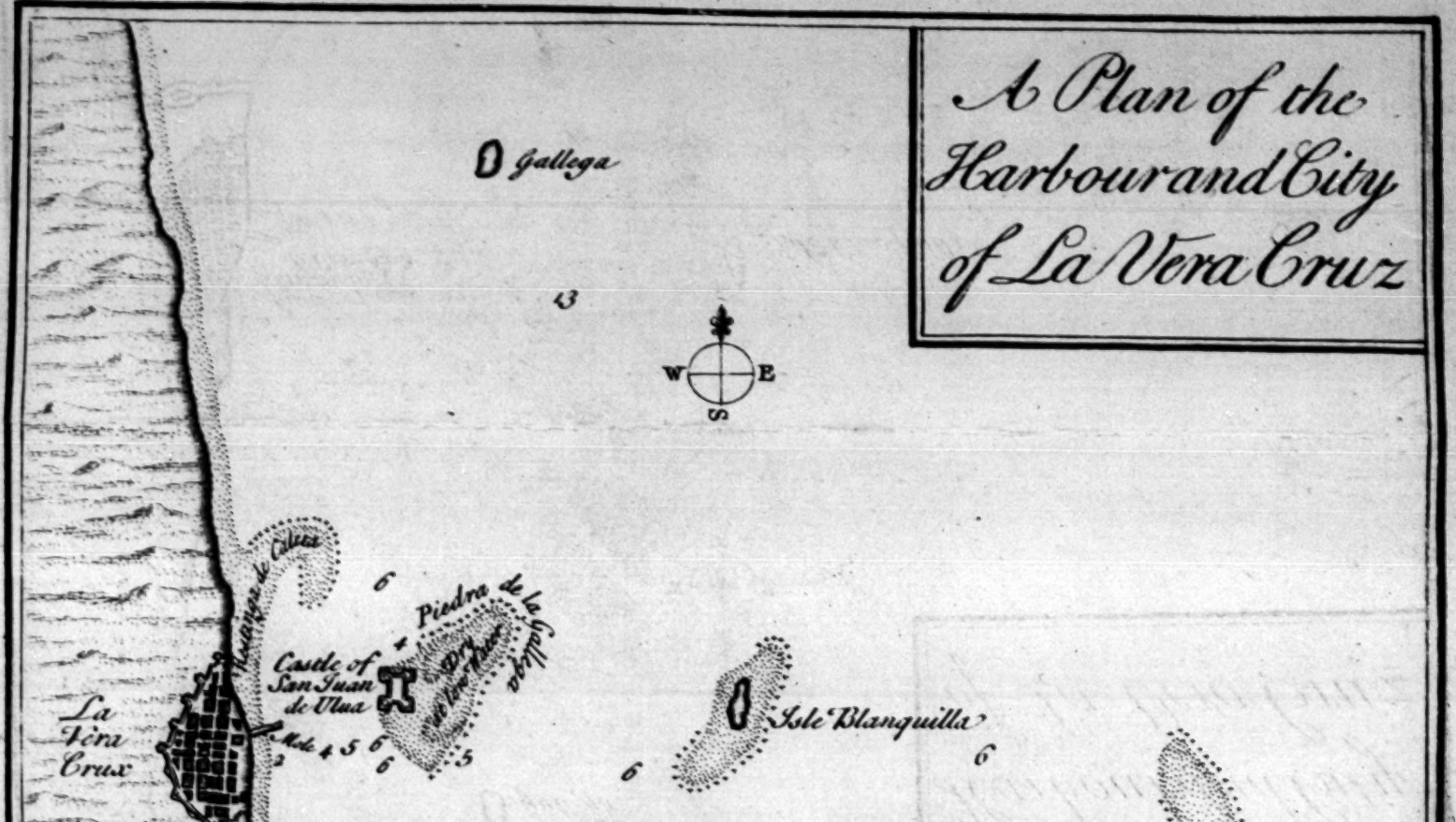
which reaches to within a League of *Tampico*. Its Entrance lies between *Tampico* and *Tuſpa*: It is navigated by ſmall Boats, the Coaſt being full of Fiſhermen.

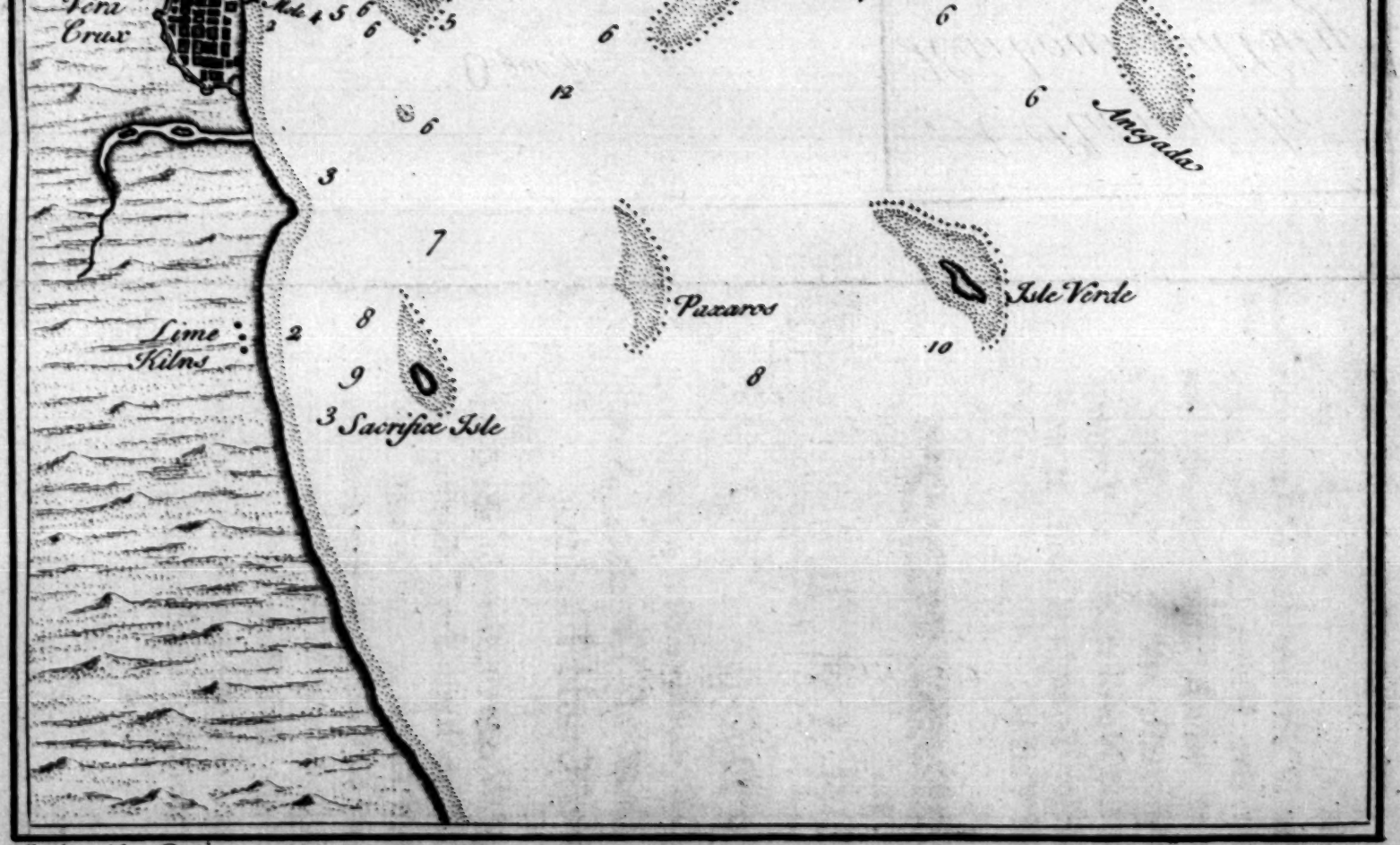
To the S. E. of *Cabo Roxo* lies the Iſland of *Lobos*, encompaſs'd by a Ridge of Rocks, between which and the Iſland of *Lobos*, a ſmall Boat may paſs, there being towards the N. E. a Paſſage of good Water, and on the S. W. Side there is a very good Anchoring Place of eight or ten Fathom Water; on the North Side of it lies a Ridge of Rocks. Now, altho' no Mention is made but of the Iſland of *Lobos*, yet on the N. W. Side, about a League from it, there is another little Iſland, called *Iſla Blanquilla*, to which the Ridge of Rocks from *Lobos* reaches; they are here ſandy, having ſome Palm Trees growing upon them: Towards the Weſt of the ſaid Iſland of *Lobos*, and *Cabo Roxo*, within Land there is a great Mountain, called *St. Juan*; in the Middle of which is a Ridge, or Hill, like a Saddle, which may be diſcern'd ten Leagues off at Sea. Iſla de Lobos.

From *Cabo Roxo* the Coaſt runs S. W. as far as *Tampico*, or the Bar of *Tamiagua*, which is the ſame as the Mouth of the great *The Lake of* Tamiagua.

Lake, that I mention'd before, and is called the Lake of *Tamiagua*, ſo that the Coaſt of *Cabo Roxo* ſeems to be encompaſs'd with Water. In the Mouth of this Lake there is a ſmall Iſland; and about two Leagues E. N. E. of the ſaid Iſland, are ſome Ridges of Rocks, called the Shoals of *Tampico*, which lie N. W. and S. E. with ſmall Channels running between them: Next to *Tampico* lies *Tuſpa*, where the Coaſt runs to the S. E. as far as *Punta delgada*; and about three Leagues on the S. E. Side of *Tuſpa*, there are other Ridges of Rocks, called the *Shoals of Tuſpa*, which lie, with thoſe of *Tampico*, S. S. E. and N. N. W. The Diſtance between them is about five Leagues, and on the Land Side of them you have Soundings, and Anchoring Ground ſhelter'd from the *North Winds*; and by keeping on the Windward Side, along all this Coaſt to *La Vera Cruz*, you have Soundings in eight or ten Fathom, with clean and good Ground.

Upon the Bar of *Tuſpa* there is a little Peek, reſembling the Caſtle of *St. Juan de Ulva*; and not far from it, towards the North, are two high Hills, like unto Sugar Loaves, called *los Gregorios*, by which the Bar


A Plan of the Harbour and City of La Vera Cruz
Gallega
W
E
S
Castle of San Juan de Ulua
Piedra de la Gallega
La Vera Crux
Isle Blanquilla
3
4
5
6




P. Harrison Delin.

A Scale of Miles.

1 2 3

Bar of *Tuſpa* is known; over this Bar only Boats can paſs.

From *Tuſpa* to *Tocoluta* and *Nauta*, and between theſe two Rivers, are two ſmall Mountains; of which, that towards the South is the greateſt, and is upon *Nauta*; The other on the North reaches to *Tocoluta*. The River where *Tocoluta* is built, is navigable by ſmall Veſſels. Tocoluta *and* Nauta.

## CHAP. II.

### *Containing a Deſcription of the reſt of the* Mexican Bay, *and its* Shoals, *with the Coaſt of* Yucatan, New-Biſcay, *and* Grand Florida.

FROM *Nauta* to *Almeria*, the Coaſt has ſome high Sand Banks, and within Land are ſome very high Mountains, called *Sierras de los Alumbres*, which lie E. and W. with the *Terra Blanca*; from the ſaid Plains of *Almeria*, the Coaſt continues low, ſandy, and even, and over it you may ſee, within Land, a very *The Windward Coaſts of* La Vera Cruz, *and Plains of* Almeria.

great, high and even Mountain, called the *Sierra del Papalota:* The Plains aforeſaid, run as far as the *Lagunilla* and *Boquilla*; from which Places may be diſcovered the Land of *Cofre de Perote*, and the *Volcano de Orizaba*, which laſt are great Mountains deſcribed before; after the *Lagunilla* follows the *Punta delgada*, which lies near the Sea; and is the Skirt of a great Mountain which has a Break in the Middle, that cauſes it to appear in the manner of two Mountains, called by ſome *Los Atriſcos*, and by others *Los Herreros*, or *Los dos Hermanos*. In *Boquilla de Piedras* the Boats take Shelter, there being good Water. Off the *Punta delgada* appears the Rock of *Tortuga*; and the Shore along the ſaid *Punta delgada* is not clean, on account of a ſtony Ridge running from it, about the Diſtance of a Gun-ſhot: Towards the South of the ſaid *Punta*, is a ſmall Bay called the *Ganada Bobo*, where there is an Head Land, under which a large Boat may anchor and find ſhelter; and towards the North, tho' we find ſix and eight Fathom Water, and good anchoring Ground, yet there is no Safety for a Ship, becauſe the Sea breaks very much upon the Shore.

Punta delgada.

From

From *Punta delgada* to *Old Vera Cruz*, the Coaſt runs South, and upon *Bernal* there is a great Hill like a Sugar Loaf, called *Bernal el Chico*; where a ſmall Veſſel may take Shelter. Between the ſaid Hill and the Coaſt of *Bernal* and *Sampuala*, are the Mountains of *Villa Rica*, mentioned before; and from *Sampuala* to *Chacalaca*, the Coaſt conſiſts of Sandy Iſlands or Banks of different Heights; and from *Chacalaca* to *Old Vera Cruz*, the Sand Banks are low and level: But within the Coaſt the Land is all high, as was before obſerved; and in this *Chacalaca*, is a Watch Tower that gives Notice to *New Vera Cruz*, of every Thing obſerved at Sea. Off *Old Vera Cruz*, is a Sand Bank very high and bare; and the like we find to the South, as far as *Rio de en Medio*; and along the Coaſt that runs S. E. from *Old Vera Cruz*, the Sand Banks appear as far as *New Vera Cruz*. Upon *Punta Gorda* is a Sand Bank round and bare, which looks reddiſh when the Sun ſtrikes upon it: The River of *Old Vera Cruz* is fit only for large Boats. Bernal.

From *New Vera Cruz* to *Medelin*, the Coaſt runs low, with little Hillocks, to the Diſtance of two Leagues, from the ſaid River of *Medelin*, which has a Bar, and is fit Medelin.

only for great Boats: At ſome Diſtance off lies a ſandy Iſland or Bank, on the S. E. Side whereof grows abundance of Wood. On this Coaſt lies the Iſland of *Sacreficios*, with an anchoring Place of eight Fathom, on the South-ſide; the Bottom in ſome Places being Stone: Upon the Coaſt over-againſt this Iſland, are the *Ovens* or *Lime-Kilns*; and on the South of the Iſland *Verde* you may alſo anchor, but not ſafely with a ſtrong Northerly Wind.

Punta de Anton Liſardo.

From the River of *Medelin*, to the *Punta de Anton Liſardo*, the Diſtance is three Leagues; the ſaid Coaſt has its ſandy Iſlands or Banks, ſome of which are woody; the ſaid *Punta* being flat, and alſo woody: The Sea in this Place is very boiſterous, and the ſaid *Punta* has a ſmall Bay fit to ſhelter a Boat. On the North-ſide of this *Punta*, about a League off, lies *Iſla Blanca*, which is a ſmall Iſland that conſiſts of white Sand, even with the Water; by the South-ſide of it there is a good anchoring Place, where the great Boats that trade from *Alvarado* take ſhelter; and between the ſaid Iſland and the *Punta de Anton Liſardo*, there is a Channel of ſeven and eight Fathom, with a good ſandy Bottom; and about a Stone's-throw towards N. E.

of

of the Iſland *Blanca*, begins the ſtony Ridge *del Palo*, and between them is a Channel of five Fathom, but narrow, called *Canal de Juan Grande*; the ſaid ſtony Ridge of *del Palo* ſtretches to the S. E. followed by another, called *le Rizo*; and after that by another, called the *Anegada Grande*, and others, called *Raviorcados*; and then follow the *Cavezas*, which were two ſmall Iſlands, but ſunk by a Storm, and now the Sea conſtantly breaks upon them; they lie about five Leagues to the N. of the River *de Alvarado*. From the ſtony Ridge *del Palo*, all the ſaid Shoals run S. E. to the Diſtance of nine or ten Leagues, as far as the ſaid *Cavezas*; and from hence to the Leeward are no more Shoals toward the Sea. Between the ſaid ſtony Ridges, there are Channels of ten and twelve Fathom Water, large enough for Ships to go in and out, and when Neceſſity requires, may ſhelter from the *North Winds* near the ſaid ſtony Ridges: for I have ſeen a *French* Ship, which enter'd this Way, and ſhelter'd herſelf near and within the ſtony Ridge, called *del Palo*, which is the greateſt: Between them and the Coaſt is a Paſſage of ten and fifteen Fathom as far as *Alvarado*.

From the *Punta de Anton Liſardo* to the *Rio de Alvarado*, the Diſtance is about ſeven Leagues; and along this Part of the Coaſt are high ſandy Iſlands or Banks, ſome whereof look red, and thoſe on the River cauſe a great Fall, which may be ſeen off at Sea, and you ſail towards 'em, for the Mouth of the River lies there. The Sand Banks on the N. W. Side make Eddies, and are larger than the others; and the Sand Bank upon the Mouth or Entrance appears as a Rock; cloſe to which is a Channel of ſixteen *Palmos* or eleven Foot Water: In the Middle of the Entrance is a Bank, upon which the Sea always breaks, called *el Buey*; tho' it often ſhifts its Place. The River is very rapid and deep, with many Towns upon it; one of which, about twenty Leagues up the River, is call'd our Lady of *Caſamaloapa*; from the ſaid River of *Alvarado*, the Coaſt runs with a double Row of high Sand Banks; and about a League to the Leeward, there is a round Bank, much higher than the reſt, of red Sand, called *el atto de Simon*; and this, with that of the Rock of the Channel, makes the Appearance of a Fall off at Sea, and points out the Mouth of the River; and on the ſaid rocky Eminence of the Channel is placed the Watch

or

or Signal Houſe of the Town of *Alvarado*, and on the ſaid Coaſt to S. E. about nine Leagues off *Alvarado*, lies the River *de Cavannas*, which is a rapid River, and formerly the Ships uſed to ſhelter there from the *North-Winds*; it was inhabited by Fiſhermen, but at preſent the Mouth of it is cloſed up, ſo that it cannot admit even of a ſmall Boat; and the Sign to know when you are upon this River, is to look within the Land to the Mountain of *St. Martin*, which is known by a Hill upon it like unto a Watch Tower: This Mountain lies N. and S. with the Mouth of the ſaid River of *Cavannas*. All along this Coaſt is deep Water, and bold too: It happen'd that a Ship ſtruck upon this Coaſt, and all the Crew were ſaved becauſe they run aſhore near the Mountain; about two Leagues to Leeward of *Alvarado*.

Two Leagues to the ſame Side of the River of *Cavannas*, there are, near the Shore, ſome little Iſlands, which run about a League in Length, and are called *El Atajo*, and this is the worſt Part of the Coaſt.

From the River of *Cavannas* to the *Puntilla*, which is a League, the Coaſt runs S. E. and on this *Puntilla* which is ſtony and flat, the Coaſt terminates in ſmall Hillocks, making

making upon the ſaid *Punta* two round Hills, which ſeen from far look like little Iſlands from this *Puntilla* to *Roca Partida*, there is a League's Diſtance, and here lies the great Mountain of *St. Martin*, which runs to *Pan de Miſapa:* All this Coaſt is ſteep too and covered with Trees. Towards the Sea are high and craggy Cliffs, with Hollows and Caverns, which in bad Weather cauſe ſtrange Noiſes and Echo's that are often heard at *Alvarado* and *Guazaqualcos.* There was a Ship driven by the *North Winds* (without knowing where ſhe was in the Night-Time) upon theſe Rocks of the Mountains *St. Martin*, about a League from the Land; it became calm on a ſudden; and in the Morning finding herſelf under that mountainous Place, ſhe anchor'd and continued there 'till the Breezes came and ſo weigh'd and ſtood off to Sea. From the ſaid *Puntilla de Roca Partida*, there are two ſmall Rivers of good Water, and the *Roca* has two ſmall Iſlands adjacent thereto, and a ſandy Cove on the N.W. Side; and on the S.W. Side is another great Cove, both which are Shelters for great Boats; the one from the S.W. and the other from the *North Wind.* A League to the S.W. of this *Roca Partida* lies another great round

*Roca*

*Roca* or Rock, called *El Morro de St. Martin*; and from this Rock or *Morro* the Coaſt runs South to a ſandy Shore, which is a League and half off, where there are three Rocks full of Cavities; and the laſt towards the S. caſts from it ſelf a Spring of Water, which falls into the Sea: From this laſt mentioned Rock begins a Shore, which runs half a League S. S E. at the End of which Shore is the Lake or *Laguna* of *St. Andres*; the Entrance whereof lies N. and S. and has 15 *Palmos*, or ten Foot Water; within it is a good Lake, running to the W. about a quarter of a League, where it is very ſhallow; but within the Bar there are four Fathom: It is well ſhelter'd, and contains two Sorts of Fiſh, called PARGOS and ZARGOS.

On the other Side, to the S. E. of the Mouth of this Lake, you'll find a Ridge of large and round Stones very rough; and within the Lake you'll ſee much Water dropping from the ſaid Ridge, which is the beſt I ever drank: To find the ſaid Lake on the Coaſt; when you are come near the Rocks, look for the Shore, (for there is no larger near thoſe Mountains of *St. Martin*) and as ſoon as you have ſeen it, coaſt along Shore towards the S. E. and you'll find the Mouth

Mouth, or Entrance, between the End of the ſaid Shore and the aforeſaid Ridge; when you come upon this Coaſt, you may ſee the Lake within the Land from the Top of any Veſſel; and off at Sea it lies E. and W. with the firſt Point that runs out from the South Side of the great Mountain of *St. Martin* into the ſaid Lake.

Punta de Sapotilan.

From the Lake of *St. Andres* the Coaſt runs E. S. E. to the *Punta de Sapotilan*, and *Coſta brava de Sabrucales*; the ſaid Point is flat and low, declining from the Edge of the Mountains to the Sea; upon it are little Iſlands, and Stone Ridges, which run half a League into the Sea; and along the Coaſt about a League; between them and the Point there is a Channel for large Boats, and between the ſaid little Iſlands there are ſmall Channels for ſuch Veſſels; and 'tis cuſtomary for them to take ſhelter under the ſaid little Iſlands, near a Ridge which lies upon the Point, four Leagues N. of *Pan de Miſapa*: To the South of which, is a little Bay; and about a League and half to the South of this Bay is a ſmall River, called *Del Portrero*; from which River the Coaſt runs S.E. two Leagues and an half to another great Rock, which has at the Bottom towards the

Sea

Sea a Jetting out of ſharp Point; and four Leagues from the ſaid Rock, or *Punta de Sapolitan*, to the *Punta de Sayultepeque*, upon which lies the *Pan de Miſapa*, terminates the *Coſta brava* with all the Mountains; ſo that it begins with *Roca de Farrellon*, and ends with another Rock of the ſame ſort. Between the River of *Potrero*, and the ſaid Rock of *Sayultepeque*, the Coaſt has two Ridges or Peeks like Rocks, of ſeveral Colours; from which and the Rock of *Sayultepeque* riſe the aforeſaid Mountains of the *Pan de Miſapa*. From the ſaid Rock of *Sayultepeque*, about a League to the South Eaſt lies another Rock called *El Potrero de San Juan*; between theſe Rocks is a Bay, in the Middle of which is a ſmall Rivulet of ſweet Water; and on the South Side of the ſaid Rock *Potrero de San Juan*, a ſmall Veſſel may take ſhelter, and find good Water. This Rock of *San Juan*, and *Pan de Miſapa*, lie N. W. and S. E. with the River of *Guazaqualcos*, which is ſix Leagues; and within Sight appears a Coaſt that is raiſed by Sand Banks, that lies E. and W. To the S. E. of the ſaid *Punta* you'll ſee ſome Sand Banks quite bare; and there are no other in all this Coaſt, which ſerve as a Sign or Mark to ſhew the River

Punta de Sayultepeque y Pan de Miſapa.

Punta de San Juan.

of

of *Guazaqualcos*, and look reddiſh; at the End of the ſaid Banks, and its Point towards the Eaſt, is the Entrance or Mouth of the ſaid River of *Guazaqualcos*, which Entrance lies N.W. and S. E. with the *Pan de Miſapa:* On the other Side, to the Eaſt of this River, are Banks of a low Mountain, which returning to the *Punta de San Juan*, make the largeſt Bay on all this Coaſt, called the Bay of *Miſapa*; the Lake of which lies about two Leagues to the South of the ſaid *Punta de San Juan:* The Coaſt on the N. W. Side of the ſaid Lake conſiſts of Sand Banks, which compoſe one large Mount or Bank; and on the S. E. Side lie ſome low and white Sand Banks: Between thoſe and theſe lies the Mouth of the Lake of *Miſapa*, which contains but four or five Foot Water, but it is a very good Shelter for great Boats. The Sign or Mark by which to know this Bay, and Lake of *Miſapa*, when you are off at Sea, is to look within Land, to the Skirt of the Mountain of the *Pan de Miſapa*, which declines towards the S. or S. W. for when the End of the ſaid Skirt lies W.S.W. from you, then the Bay and Lake of *Miſapa* lie W.S. W. alſo: Within the Lake of *Miſapa* there is a little Bar, and an Inlet of little Water, which

Laguna de Miſapa.

which has a Communication with the River of *Guazaqualcos*; ſo that the Land from the Lake of *Miſapa*, as far as *Guazaqualcos*, is an Iſland, and for the moſt part, the Coaſt runs E. and W. for about four Leagues: The Coaſt is bold too, tho' the Shore be ſandy; and upon it is an excellent Rivulet of mineral Waters, which are called the *Rivers de Santiago*; at the Eaſt-End of the great and bare Sand Banks aforeſaid lies the great River of *Guazaqualcos*, (off which is a Sand Bank that never ſhifts) where there is twenty-two Foot at High-Water, and eighteen at Low-Water, it is about ſeventy or eighty Yards broad; and within the Mouth of the River is ſeven or eight Fathom Water, and five Fathom on either Shore: Its Entrance lies S. by W. and the Channel is in the Middle, along which ſail between the Breakers, 'till you are paſt the Bank, and then you may anchor in any Part of the River; on the Weſt-ſide of the Sand Bank, lies the *Choca* or *Cottidge* of the *Vigiero* or Signal-Houſe, near which Place, on the one Side, and on the other, are ſmall Rivulets of very fine Water: Five Leagues up the River, on the South Side, is an old Building Dock, or Yard, where two Ships have been built; and from hence the Road runs

*Again the River of* Guazaqualcos.

to

to *Acayuca*, about ſeven Leagues; between which lie ſeveral other Towns: It is a very fine River, and the leaſt Depth of Water is four Fathom: The Place is very fertile, and full of Wood, and Cattle, which I viſited by his Majeſty's Order, to ſee if it were proper to build in; from the River of *Guazaqualcos* to the Lake of *Terminos*, the Coaſt lies E. and W. It is mountainous Land; and in ſome Places the Hills are high; from *Guazaqualcos* to the River of *Santa Anna*, or *Tonela*, the Diſtance is five Leagues; and about four Leagues up this River there is a Town, called *St. Anna*, where it ſeparates into two Streams, each of which have Towns that are inhabited: From the two Mouths of this River, you may go to *Cupila*; and both theſe Streams have a Communication within the Land, forming an Iſland between them. To this follows *Chitepeque* and other Rivers, as *Tabareas*, *St. Pedro*, *St. Paulo*, and the River of *Tavaſco*, where is a Town governed by a Mayor: To know when you are upon *Tavaſco*, look within the Land at ſome Mountains, (for there are no others) called the Mountains or Hills of *Chiapa*; and when you are N. and S. with the ſaid Mountains, you'll be alſo N. and S. with the ſaid

Rio de San Anna ô Tonela.

Rio de Tavaſco.

ſaid River of *Tavaſco*: To this follows the Lake of *Chicalango*, and then the Lake of *Terminos*, and between *Tuſta* which lies on the W. of the Lake of *Chicalango* to the Lake of *Terminos*, are careening Places for Ships, called the *Chicalango*, where is a very even Grove of Mangrove Trees, and here if a Ship runs aſhore in a North, the Crew may be ſaved.

The Lake of *Terminos* is a very large one, and has little Iſlands; the Entrances are not clear of Rocks, which you muſt paſs on the Eaſt Side, and to the Weſt of the ſaid ſmall Iſlands, which make two Entrances of clean Ground; and here Log-Wood uſed to be cut; on account of its Abundance the Foreigners reſorted to this Lake, but the Inhabitants of *Campechy* hindered them for many Years with their large Boats called *Piraquas*. *The Lake of* Terminos.

Navigating from the Capes *de Corrientes*, and of *San Anton* to *La Vera Cruz*, or Port of *Campechy*, you muſt ſail into the Soundings of Cape *Catoche*, in the Latitude of twenty-two Degrees, and you'll find the greateſt Sounding fifty Fathoms; in which Parallel you muſt ſail till you are in twenty or twenty-two Fathom, but not into leſs than eighteen Fathom, for off the Mouths of *Conil* there *Courſe from Cape* de Corrientes *and* San Anton *to* La Vera Cruz *and* Campechy *within the* Alacran; *which is the ſafeſt at all times, and better than without, which Courſe has been abandoned.*

are Shoals, where from eighteen Fathom you'll come ſuddenly into twelve, and you ought to avoid them; for in twelve Fathom lies a Shoal, called *El Corſario*, which is but juſt cover'd with Water, and ſome have ſeen it dry: The Bottom is ſtony; therefore obſerve that keeping in twenty or twenty-two Fathom you are ſafe; and in theſe Soundings take care to keep along the Land Side of the *Alacran*, not exceeding twenty-five or twenty-ſix Fathom, becauſe the Shoals of the *Alacran* lie in thirty Fathom without as well as within; and it may be ſeen without, by the breaking of the Water. In twenty Fathom is the Channel, the Bottom in ſome Parts thick Sand, in others ſmall Cockle-Shells, or Sand and Gravel; when you are near the Shoal of *Siſal*, you will find but twelve Fathom, therefore take Care to ſound often in order to avoid falling upon it: It is a ſtony Shoal, and the Water is ſeen to break upon it: The Courſe of all this Channel is W. by S. with twenty Fathom Water: Obſerve that when you find eighteen Fathom, and afterwards twenty, and then again eighteen, with the Bottom Stone, then you are quite clear of the Shoal of *Siſal*, and are upon the Shore of *Punta de Piedras*, which ſort

of

of Bottom runs from the Coaſt to the Shoals of *Alacran*, which is the beſt Mark or Sign of the Soundings in all this Paſſage; but when you find the Bottom Stone, ſteer your Courſe W. by S. and within an Hour you'll looſe theſe craggy Iſlands, and be in twenty or twenty-two Fathom, with Sand and Gravel, and then preſently in twenty-five Fathom and Sand, after that in twenty-ſix or twenty-ſeven Fathom, with ſmall white Sand, when you are off *Deſconicida*; and then if you have the aboveſaid Soundings and Depth of Water, and are bound for *La Vera Cruz*, ſteer W. S.W. which Courſe will bring you into deeper Water, where you'll find Sand like that of the Hour-Glaſs in twenty-eight or thirty Fathom; when the Sand is mix'd with Mud, you are near the Channel, which lies between the *Triangulas* and the new Shoals of *Manoel Antonio*, within which Channel you'll find more and more Water, and the Bottom Mud: In forty-five Fathom you are got quite clear of the Shoals, and will in a ſhort time be out of Soundings: But if you find your ſelf in thirty-two or thirty-three Fathom and Mud, ſound often, for if you meet with Stone, you are not quite clear of the aforeſaid Shoals of *Manoel Antonio*,

*Keep in the Latitude of 22 Degrees, 'till you diſcover the* Deſconicida, *and the Bottom keeps the ſame Depth to 21° 20'.*

*rio*, and muſt keep off in thirty Fathom, and then you'll ſhortly fall into forty and forty-five Fathom, and be ſafe, and clear of all Danger: From the ſaid Paſſage continue your Courſe W. S. W. which will bring you into the Channel, the Currents and Variation being here allow'd for.

## CHAP. III.

### *Containing the Deſcription of the Coaſt of* Yucatan, Guatemala, Honduras, Nicaragua, *and* Coſta Rica.

*To go to Campechy by the Coaſt.*

BUT if you are bound for *Campechy* by the Coaſt, and paſſing between *Siſal* and the Shore, find the Soundings twenty Fathom, to the Southward of the Parallel of twenty-two Degrees, ſuppoſe in twenty-one, without diſcovering Land; in ſailing on you'll quickly get no Bottom, and be off the Paſſage that lies Eaſt of the Iſland *de Mugeres*; after which you'll enter the Paſſage of great Soundings, and come by degrees into twenty and fifteen Fathom, and will make the Land of the Iſland *Mugeres*, which is flat, and has a Grove of Mangrove

Trees, with an ancient Building at the East End of it, that ſtill looks white; behind the S. E. Point of it you may anchor in ſix Fathom Water near the Iſland, ſearching for the beſt Ground, becauſe there are ſome Stones: On the N. E. Point of it is a good Place to take in Water.

From the Iſland *de Mugeres*, you muſt ſail to N. N. W. and N. W. in fifteen Fathom, 'till you raiſe *Cayo de Cantoy*, without leſſening your Soundings; for in the Paſſage between the ſaid *Cayo*, and the Iſland, are ſome ſtony Ridges under Water; and from thence to the Coaſt of Cape *Catoche*, near Shore, is full of Ridges of ſunken Rocks: From the Soundings in fifteen Fathom, you may ſee the Land of Cape *Catoche*, which is low, ſandy, and full of Mangrove Trees: When the Water deepens to the N. W. you'll be clear of *Cantoy*, and run into eighteen Fathom; then ſteer Weſt, keeping in eighteen Fathom, 'till you are clear of the Mouths of *Conil*, and the Shoal *del Corſario*, which was ſo called becauſe it was diſcovered by an *Engliſh* Pirate in the Year 1669.

Having ſail'd clear of the Shoal *del Corſario*, ſteer S. W. leſſening the Soundings 'till you come into ſix Fathom Water, when

you'll ſee the Land which is low and marſhy; three Leagues diſtance, before you make the Land, you'll ſee the Watch Towers upon it, that look like Ships under Sail, by which Appearance many have been miſtaken; the like Watch Towers are ſeen upon the Rivers *Ligartos* and *Siſal:* In the Night-time you may run ſafely into ſix Fathom, and by Day into five: If you intend to paſs between the Coaſt and the Shoal of *Corſario*, as ſoon as you arrive at *Cantoy*, you muſt look out for the Land of Cape *Catoche*, running into ſix Fathom; and coaſting along Weſtward, in that Depth of Water, 'till you are got ſafe paſt the Land Side of the ſaid Shoal, and arrived off the *Punta de Piedras:* All the Soundings from Cape *Catoche* to this Place, are thick Sand, Gravel and Sand, or Sand and ſmall Cockle-Shells; as ſoon as you are up with *Punta de Piedras*, in ſix Fathom, you'll find Stone, and Rocks in five Fathom; therefore keep off to the N. W. in ſix Fathom, till you are clear of the ſaid *Punta de Piedras*, and find deeper Water with Sand: If the Sand is white, you are N. and S. with *Deſconicida*; from hence you muſt ſail South 'till you meet with five or four Fathom, which will bring you upon the Port of *Campechy*.

If

If you would ſail within the Soundings from *Campechy* to *Cartagena*, or *Honduras*, (for now this Voyage is made in that manner from *Campechy*, as well as from *New Spain*;) direct your Courſe firſt towards the North, till you increaſe the Depth of Water, and come into fifteen Fathom, and twenty-one Degrees of Latitude, where you are upon the North Side of the *Deſconicida*; and from hence ply to the Windward, till you arrive off *Punta de Piedras*; and when you have ſix Fathom you are clear of the ſaid *Punta*, and to the Eaſtward of it: And if you are bound to *La Vera Cruz*, you muſt endeavour to ſail between the Shoals of the Iſland of *Arenas* and the new Shoal; or between the new Shoals and the *Triangulas*, or by either Entrance as the Seaſon admits: If you are in the Soundings off *Arenas*, and loſe the Mud, you are to the Eaſtward of the ſaid Shoals, and from thence you muſt run into twenty-one Degrees of Latitude, and find the Soundings leſſen to eight Fathom, on the North Side of the *Deſconicida:* Here you muſt tack and turn it up till you clear the *Punta de Piedras* as aforeſaid; and ſo make ſhort Trips between the Coaſt and the Shoal of *Siſal*; from four or five to nine or ten Fa-

Deſconicida *in* 21° *Lat.*

thom Water, it is all a good and clear Ground: The Windward Fleet generally ſteer this Courſe, becauſe the Winds in the Day-time blow out of the Sea, and are *Trade Winds* upon this Coaſt; in the Night-time they blow off the Land, upon which account, for the moſt part, there is not ſo frequent an Occaſion to tack towards the Eaſt, for the Currents many times ſet Eaſtward in Counter Streams. But without *Siſal* they ſet W. N. W. and the uſual *Trade Winds* continue to blow; having turn'd to Windward as aforeſaid, near the Land of *Siſal*, when you are on the Eaſt Side of the aforeſaid Shoal in the Off Shoar Tack, you may go as far as fifteen Fathom; ſailing thus till you are abreaſt of the River *Lagartos*, for from hence to Cape *Catoche* there are Sand Banks on the Coaſt, which may be ſeen very plain, on the other Side of the River *Lagartos*; wherefore ſtand off into eighteen Fathom, and in again to fifteen Fathom, till you weather the Shoal of *Del Corſario*; for when you've clear'd that, you may ſtand in Shore to eight Fathom, but no nearer, becauſe you are not clear of the *Cayo* of *Cantoy* while the Soundings leſſen to the S. E. but when you find deeper Water towards the

S. E.

S. E. you are clear of the ſaid *Cantoy*, and by degrees you'll loſe the Soundings on the Eaſt Side of *Cantoy*, near the Iſland of *Mugeres*, which is only frequented by Pirates and Privateers; and therefore, without neceſſity, you are not to come in ſight of that Iſland.

If you go to *Cartagena*, or *Porto Bello*, and have loſt Soundings, you muſt ſteer away S.E. or E.S.E. in order to get Soundings on the Banks off Cape *Gracias a Dios*, from whence the Shallows run more than twenty Leagues Northerly: Having got into theſe Soundings, ſail along the Coaſt, and keep a good look out; when you are in ſight of Cape *Gracios à Dios* the Coaſt runs South, and the ſaid Shoals with it: If the Wind or Weather obliges you to keep near the Coaſt, take Care to avoid the Rocks or Sand Banks that may obſtruct your Paſſage; in this manner you muſt ſail, 'till you meet with the main Land, the Coaſt of which lies E. and W. and then, tacking about, you'll advance towards the Eaſt very well, becauſe of the counter Currents; and the Winds are favourable to you both by Day and Night upon this Coaſt; and thus you may coaſt along to *Porto Bello*, or *Cartagena*, into which

which Ports direct your Course, as I shall order in a proper Place.

But if you are bound to *Honduras*, and find you are clear of the Soundings of Cape *Catoche*, on the East Side of the Island of *Mugeres*, steer S. S. E. 'till you see the Island of the *Quanaxa*, which lies in the Latitude of sixteen Degrees and forty Minutes, upon the Coast of *Honduras*; and a little further to the Westward of the said Island, lies that of the *Racatan*; when you are near either of them, direct your Course towards the *Port de Truxillo*, or *Port de Caballos*, or any other on the Coast: And in Case the Winds should incline to the S. E. and you discover Land in twenty Degrees of Latitude, it is the Island of *Cosumel*, which is a great Island, and of a considerable Height, on the East-Side of the said Island appears some antient Buildings of *Indians*; 'tis not clear on the West-Side, but there is a good Channel between the Island of *Cosumel* and the Coast of *Bacallao*, thro' which you may pass. On the South Side of *Cosumel* is the Island of *Quita Suennos* in Latitude of eighteen Degrees and thirty Minutes, which has three little Islands on the North Side called *Los tres Hermanos*, or the *Three Brothers*; the Coast

Cosumel.

Quita Suennos

Coaſt without is all full of ſtony Ridges, as far as the Bay *de la Aſcencion*; and upon this Iſland *Quita Suennos*, or *Three Brothers*, was loſt the Galleon *Santiego*, wherefore in falling in hereabouts take care not to come too near them.

*The Courſe from* Campechy *to the Port of* Havannah.

If you ſail from *Campechy* for the Port of *Havannah*, you muſt begin your Courſe towards the North 'till you come to eighteen or twenty Fathom Water, and from thence ſteer N.E. which will carry you thro' between the *Negrillos* and the *Alacran*, which are above twenty Leagues diſtant from each other, and in the Middle of it you'll find forty Fathom, and in ſight of its Breakers at leaſt thirty or thirty-five Fathom: If you are E. and W. with the Head of the *Alacran*, and nearer to the *Negrillos* than to the ſaid *Alacran* you'll get no Bottom; and when you have loſt Soundings, ſteer N.E. if you can, or if you ſail N. N. E. you are in a ſafe Courſe: If you can't enter between the ſaid *Negrillos* and *Alacran* ſteer N. N. W. 'till you find thirty Fathom Water, for theſe Soundings will bring you between the *Negrillos* and the *Iſla Vermeja* or red Iſland; when you have ſailed two or three Hours in thirty Fathoms, you'll be within the ſaid Entrance, and in one Hour more you'll

you'll find forty or forty-five Fathom, and immediately after get no Bottom, upon which ſteer N. E. to avoid falling again into the Soundings, which are on the North Side of the *Negrillos*; and reach to more than twenty-four Degrees of Latitude. From this Latitude you may turn to Windward, into the Latitude of twenty-five Degrees, in order to get into the Soundings of *Tortugas*; and when you are out of the Soundings of *Campechy*, obſerve that the Currents will ſet you to the N. W. in this Sea, as far as the Latitude of twenty-ſix and twenty-ſeven Degrees; and from thence forward there are counter Currents off the Coaſt, to the Windward; wherefore, tho' you find yourſelf in theſe Latitudes, you are in no Danger, becauſe the Voyage is commonly ſhorter; and if you get into the Soundings of *Tortugas*, in twenty-ſix Degrees of Latitude, as ſoon as you find forty Fathom, ſteer South, 'till you loſe the Soundings, and venture not into leſs than thirty-five or forty Fathom; for to the North Side of the ſaid *Tortugas*, there lies a Shoal, ſo very ſteep too, that you'll have twenty-five Fathom cloſe aboard on't, and the next Caſt aſhore; ſeveral Ships have run upon it, but by bracing their Head Sails to the Maſt, and

carrying

carrying a ſmall Anchor out a-ſtern, have got off again; if you are in fifteen Fathom Water, and if it is in the Night-time, you are on the N. E. Side of the ſaid *Tortugas*, I wou'd adviſe you to bring to, (for all about this Place is good anchoring Ground) 'till it is Day, and then direct your Courſe South, and you'll run from fifteen into ten Fathom; obſerving where the Sea breaks to avoid a ſhallow Place not clear of Rocks, which lies to the N.E. of the *Tortugas*; therefore endeavour always to keep in the ſaid Soundings, and you'll paſs by the ſaid Shoals and Rocks; after which you'll immediately find twenty-eight Fathom, between *Tortugas* and the *Cayo del Marquez:* This Paſſage is ſhallower near *Tortugas*, than off the *Cayo del Marquez*, and from hence ſailing South you'll loſe the Soundings. In caſe you meet with forty Fathom Water on the Weſt Side of *Tortugas*, in the Latitude of twenty-five Degrees, direct your Courſe to the South, 'till you loſe Soundings, and then S.S.E. if the Weather is moderate, but if the Breeze is freſh, you muſt ſteer S.E. and theſe Courſes will bring you to the Port of *Havanna* and *Coſimar*.

On the Coaſt of *Grand Florida*, lies the Bay of *Panſacola*, near the Bay of *La Movila*, where

where is a Caſtle and a Town, which has lately been peopled by the *Spaniards*, and has a Garriſon: It is a very good Bay, and has its Entrance to the North between two Points of Clifts; but in the Middle it has ſix, ſeven, and eight Fathom Water, and within is an Anchoring Place, near the Fortreſs, called *St. Mary de Galve*, ſo called becauſe it was built in the Time of Count *de Galve*; and in this Bay you muſt take care to moor your Ship well againſt the Storms which ſometimes happen: This Land produces many Pine-trees, fit for Ship Maſts, whereof many are cut down and carried to *La Vera Cruz*, by a Ship that belongs to the Flota, which brings Proviſions, and returns with Wood: This Bay lies with the Port of *La Vera Cruz* S.W. by S. and N. E. by N. and therefore they that come from *La Vera Cruz* to the ſaid Bay *de Panzacola*, ſail out N.E. and as they are always plying to Windward, they come upon the Coaſt of *New Biſcay:* In 28° ½ they find Soundings, and ſail in three Fathom, 'till they come in Sight of Cape *Lobo*, which they always endeavour to find by its Soundings; the ſaid Cape lies upon the great River of the *Palizada*, and formerly it was called the Cape of *Apalachy*; but ſince the new Diſcoveries in this

*Mexican*

*Mexican* Bay, other Courſes have been found, very different from the antient ones; for they ſailed to the N. E. in Sight of Cape *Lobo*, and within Soundings, to make the Bay of *Panzacola*; and to continue in Soundings they coaſted along in Sight of *Cayos de St. Diego*, in fifteen and twenty Fathom Water; ſailing thus from Coaſt to Coaſt, into Sight of the ſaid Bay.

From *Panzacola* there is a Communication with *Apalachy* by Land, which is alſo inhabited by *Spaniards*; and from *Apalachy* there is alſo a Communication by Land with *St. Auguſtin* in *Florida*.

This River of *Apalachy* is a very good one, and its Mouth or Entrance makes a large Harbour, but has ſome ſhallow Places, not clear of Rocks, that run off from the Land, but in the Middle has five Fathom Water; the Courſe into the Mouth of the River is North, and within it is a very good Bay, and this Place lies with the *Tortugas* S. by Eaſt, and N. by Weſt, being all a Paſſage of Navigable Soundings; a Trade is carried on between this Port and the *Havannah* by ſmall Veſſels: On the Weſt Side of the Coaſt of *Florida*, that extends N. and S. lies the Bay of *Carlos*, from whence it comes that all this *Plazer*, or Channel, from the *Tortugas* to *Apalachy*,

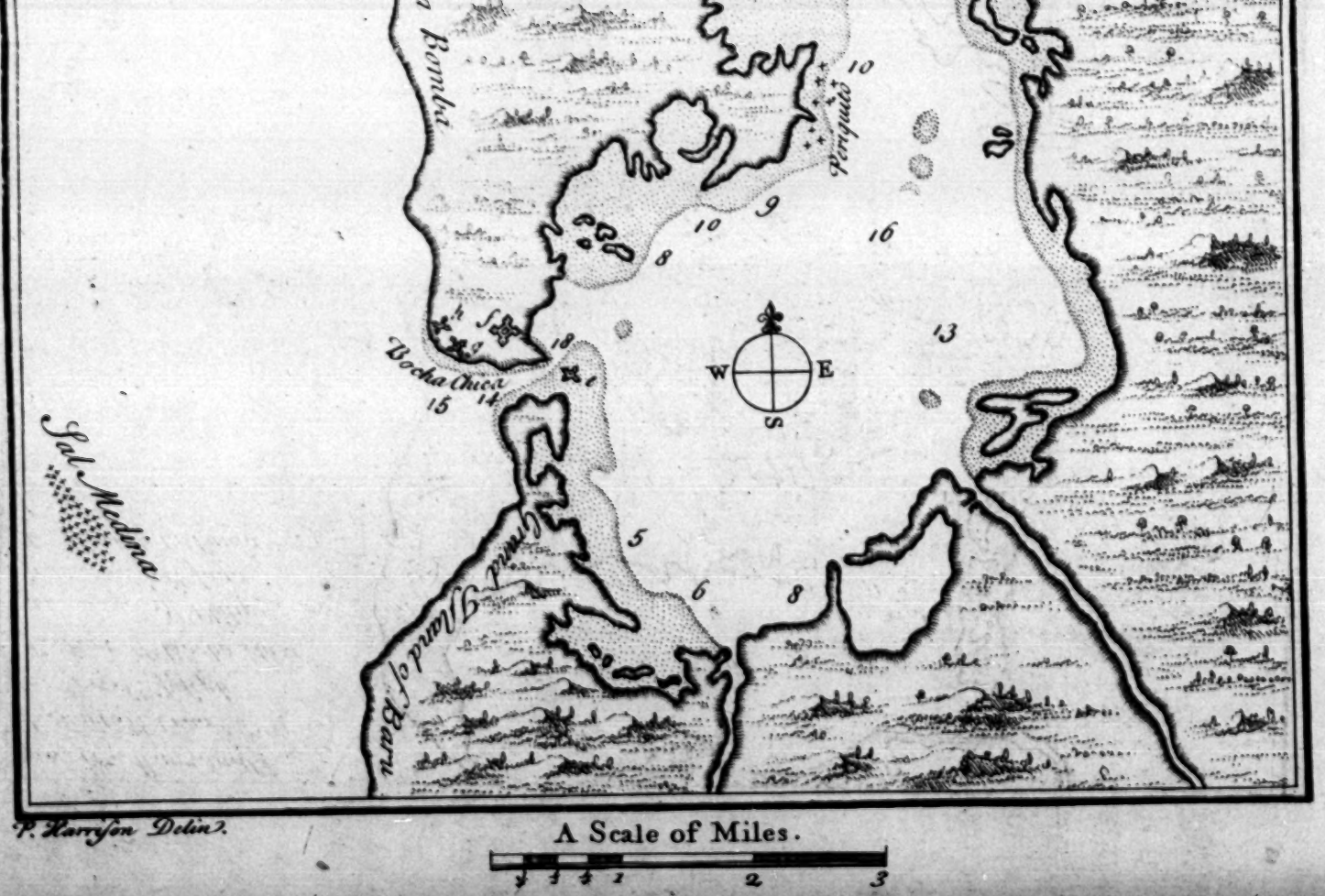
*palachy*, is called the Bay of *Carlos*: This Bay is ſhallow as well as the reſt of the Coaſt, that is to ſay, within Sight of it: The Bay of *Spirito Santo*, which lies in the Latitude of twenty-ſeven Degrees and an half, is the deepeſt of all this Coaſt, and is a great Bay of five, ſix, and ſeven Fathom Water: All the Coaſt is low.

## CHAP. IV.

*The fourth Deſcription contains the* Windward Paſſage, *with its* Shoals; *the Iſlands of* Jamaica, *and Part of that of* Cuba, *the Coaſts of* Cartagena, Terra Firma, Coſta Rica, *and* Nicarragua.

IF you come from *Old Spain*, or any other Place, and are bound to the Port of *Cartagena*; when you are off the large River of *Magdalena*, where this Deſcription of the Coaſt of *Cartagena* begins, which is a River known by its having two Entrances, and an Iſland in the Middle, that makes an Appearance of a Ridge or Land higher than the two Points on each Side the River,

# A Plan of the Harbour & City of Cartagena




P. Harrison Delin.

A Scale of Miles.

½ ½ ½ 1 2 3

River, and looks as red as Fire, and declines with a ſharp Point; on each Side the Ridge there are plain *Savanas* towards the Sea: All theſe Points on the Entrances are full of ſhallow rocky Parts but narrow; and coaſting along in a ſmall Frigate to *Cartagena* (to avoid the ſtrong Winds in the *Offing*) under the Shelter of the Land, I have ſeen, the Breakers on theſe Ledges; and at Midnight in hauling off N.W. have ſounded four Fathom, and in throwing the Lead twice I loſt the Soundings; and immediately after coaſting towards the Weſt, and having paſt the Mouths of the ſaid *Large River*, you may ſee *Morro Hermocos*, which is a ſingle Hill of a dark Appearance, and upon the Top of it is a Road that appears red: On this Coaſt, which is all low Land, is a little Bay, called *Samba:* The Shore is cover'd with Trees, and within the Land extends a great Mountain, towards S. W. called *El Alto de Samba*; when you are a-breaſt of *Samba*, you'll find the Soundings twenty-five Fathoms; which you are not to diminiſh, for fear of meeting with the Shoals of the Iſland of *Arenas*, that are not to be ſeen, unleſs you are cloſe to the ſaid Iſland, which lies at the furthermoſt End of the W. Side of the Bay of *Samba*; but if you keep in twenty or twenty-five Fathom you are ſafe; and

here if Night overtakes you, the beſt way will be to anchor, leſt you fall to Leeward of *Cartagena* (without knowing it) eſpecially if the *Trade Winds* blow, for the Current ſets towards N.W.

When you ſail along Shore, and arrive off the Iſlands of *Arenas*, the Coaſt will appear to be an even Land, extended from N.W. to S.E. in the Middle of which is a bare Mountain full of hollow, broken white Places of a circular Form, called *El Bugio del Gatto:* When you lie N. and S. with the white Cavities of the ſaid *Bugio* there are ſome ſtony Ledges that run out a League and an half off to the Sea; which have no more than a Fathom and a half of Water upon them, and near them are five Fathoms on the Off-ſide; on the Land Side, there is a Gravelly Ledge of two Fathom; which is only to be ſeen when the Bottom is clear, therefore you muſt take Care, for a great many Veſſels have ſtruck upon it: This Land of *Bugio del Gatto* terminates upon the *Punta de la Canoa*, which ſeparates into three or four Hills upon the ſaid *Punta* that look like Iſlands, in Form of ſmall Veſſels called *Canoas* turned upſide down; and hence the ſaid Point took its Name: If you are off this Coaſt of *Bugio del Gatto*, when Night comes

El Bugio del Gatto.

Punta de la Canoa.

comes on, with *Land Winds*, you muſt run into fifteen or twenty Fathom to anchor, becauſe the Current ſets towards the Eaſt, with thoſe Winds. In the Day-time you may keep in twenty Fathom, and if you loſe ſuddenly the Soundings, ſail on 'till you are N.W. and S. E. with the ſaid *Bugio del Gatto*; and from hence ſtand in for the Land till you meet with Soundings, from ſeven to eight Fathom, but then come no nearer the Shore, for in ſix Fathom off the Point of *Canoa*, there are three Rocks, called *El Negrillo*, which are under Water; but the Sea is ſeen to break upon them, tho' there is ſix Fathom Water cloſe to them: N. and S. with the Bay of *Cangrejera*, there is a Channel between them and *Punta de la Canoa* which has ſeven Fathom Water, but keeping in eight Fathom Water, you'll ſail clear of all Danger, and without them, 'till you are up with *Punta Canoa*, and then you'll bring open the Bay of *la Cangrejera*, and are paſt the ſaid *Negrillo*, which lie in form of a Triangle, about a Cable's Length diſtant from each other; when you bring open the Bay of *Cangrejera*, you'll alſo bring open the City of *Cartagena*, and then you may luff up to the Southward, and anchor at the *Playa Grande*, or *Great Shore*, which is the Coaſt off *Cartagena*: But if you ſail along the Playa Grand.

Coaſt, and have no Soundings, take care to look out for the Hill of *Nueſtra Senora de la Popa*, which lies above *Cartagena:* It is a remarkable Hill, (for there is none like it,) reſembling a Gally overturned, with her Head to the N.E. and her Stern to the S.W. It commands or overlooks all this Land; as ſoon as you are in ſight of it, ſtand in towards it, and you'll come upon the aforeſaid *Playa Grande:* If this Hill appears towards the South or S.W. you'll be on the Eaſt Side of *Cartagena*; but if it ſhould appear between the South and S.E. you'll be on the Weſt Side of *Cartagena*, in which caſe you muſt take particular Care how you ſail in for *Cartagena* on account of the Shoal of *Sal Medina*, which lies four Leagues from that Port, and a League and a half from the Shore of *Tierra Bonda*, and N. and S. with the Caſtle of *Boca Chica*, on the little Mouth; it is a Shoal of Stones, and ſhallow on the Out-ſide: Upon it was loſt an Advice Boat from *Spain* in 1688; and the *Almirante* of the Galleons of the Marquis *de Brenes*, coming from *Porto Bello* to *Cartagena*, entered *Boca-Chica*, paſſing on the N.W. Side of the ſaid Shoal of *Sal Medina* within ſight of it at Noon-Day, and after he thought himſelf clear of the Shoal, found the Veſſel touch the Ground twice, but did not

loſe

loſe her Way, for ſhe went over free, and got in ſafe: By this Fact it is known, that the ſaid Shoal runs out ſhallow towards the N.W. W..en you are off the *Playa Grande*, if you wou'd anchor on it, you may do it in what Water you pleaſe, for it is all clear Ground: At the End of this *Playa*, and of all the City of *Cartagena*, on the Weſt Side, there was an Entrance called *Boca Grande*, or the *Great Mouth*; it was very large formerly, and the Galleons uſed to enter that Way, but for a great many Years paſt, it has been ſhut up, or obſtructed, in ſuch a manner, that all the Place is one continued Shore, and does not ſeem to have had any ſuch Inlet or Mouth before it; only within the Harbour there is a little Cove with broken low Ground, that ſhews where this Entrance was. From thence, towards the Weſt, the Land becomes more ſolid, and is called *Tierra Bonda*, that runs as far as *Boca Chica*, three Leagues diſtant from the ſaid *Boca Grande*; and this *Boca Chica* is, now-a-days, the Entrance of the Port of *Cartagena*, which I ſhall explain in the Deſcription of the Bay of *Cartagena*.

Boca Grande *of* Cartagena, *and* Boca Chica.

If you are in the Latitude of ten Degrees, and looking out for the Port of *Cartagena*, diſcover no Land, you are then to the Lee-ward of it; becauſe *Boca Chica*, the Entrance

*Signs of the Leeward Coaſts of* Cartagena *to* Porto Bello.

of *Cartagena*, lies in the Latitude of ten Degrees; and from thence to the Windward is high Land, but to the Leeward it is lower Land: The *Punta* of *San Blas* lies in the Latitude of nine Degrees fifteen Minutes; and from thence to *Porto Bello*, the Coaſt runs almoſt E. and W. Between *Cartagena* and the *Punta de San Blas*, lies the Bay or Gulf of *Darien*, in the Middle of which is the large River of *Dariel*, in the Latitude of eight Degrees thirty Minutes: In this Gulf many have been at a Loſs, not knowing what to do, for want of knowing the Directions and Marks of the Coaſts; at the Mouth of the River or Gulf of *Dariel*, is the *Punta de Caribana* to the Windward, and Cape *Tiburon* to the Leeward: From *Punta de Caribana*, as far as *Cartagena*, the Coaſt lies N. E. and S.W. and from Cape *Tiburon* to *Punta de San Blas*, the Courſe of the Coaſt is N.W. and S. E. (between them is the Bay of *Playon)* and from *Punta de San Blas* to *Porto Bello*, the Coaſt runs E. and W. as was ſaid before. In your Paſſage to *Cartagena*, if you find yourſelf to the Southward of ten Degrees of Latitude, and in ſtanding to the S. E. ſhould diſcover Land a-head, or to the Windward, and none to the Leeward, you are off the Coaſt that lies N. E. and S.W.

*The N. E. and S. W. Coaſts from* Cartagena *to the River* Dariel.

near

near the River of *Dariel*; but if you diſcover Land to Leeward, that runs to the S. E. you are upon the *Playon*, which is the Coaſt of *San Blas*: When you are on the Coaſt of N. E. and S. W. you are to the Leeward of *Cartagena*, and in Sight of *Boca Chica*, and of the Iſlands of *Baru*, which are not high; and you will ſee the Hill of *La Popa*, and the Caſtle of *Boca Chica*: From the Hill of *La Popa*, the ſaid High Land extends, or runs, towards the Eaſt, with three or four Breaks, which are called *Buena Viſta*, or *Good Sight*, and the Main Land which is ſeen over the Iſlands of *Baru*, is moderately high: Near to the Sea, and to the Iſlands of *Baru*, lie the Iſlands of *San Bernardo*, which are of the ſame Magnitude as thoſe of *Baru*; and within thoſe of *San Bernardo* is a great Bay, called the Bay of *Tolu*: N. and S. with this Bay lie ſome high Mountains, which run N. E. and S. W. and are called *El Alta de Verana*: Between all theſe Iſlands and the Main, you may anchor with any Veſſel, for it is all a clean Paſſage, and ſhelter'd from the *Trade Winds*, only you muſt keep a Hand on the Fore-Yard, to warn you from any Danger that he ſees; without the ſaid Iſlands of *Baru*, but near them, you may

anchor in good Bottom with white Sand; and between them and the Coaſt you may go to *Cartagena*, in a Channel of five Fathom with white Sand, which is to be ſeen at the Bottom, and ſmooth Water; in this Manner you may ſail to *Puerto de Naos*, and from thence to *Cartagena*. To the Leeward of the Iſland of *San Bernardo*, lies *Iſla Fuerto*, which is plain and even; to the Southward of this Iſland you may anchor in ſix and eight Fathom, and may take in Water there: Between this Iſland and the Coaſt is a Channel of twenty-five and thirty Fathom: The Point on the N. E. Side of this Iſland is foul Ground without; and from the Iſland of *San Bernardo* you'll ſee that the Land of the Coaſt is plain and marſhy, only it has a few Hillocks in ſome Parts, and runs ſo to the Mountain *del Aquila*, or the *Eagle*, which lies S. W. of *Iſla Fuerto*; theſe Mountains are not very high Lands, but are only called ſo becauſe they riſe higher than the Coaſt to the Windward; and at the End of it towards the S. W. are two Breaks declining to the *Punta de Caribana*. At the S. W. Side of the *Iſla Fuerto* lies *la Tortoquilla*, which is a low Iſland, and you may anchor under its Shelter. To the

S. W.

S.W. of the *Tortoquilla*, and by the Mountains *del Aquila*, there are three other little Islands, near the Coast; and on all this Coast of *Isla Fuerto*, as far as the *Punta de Caribana*, you may anchor in twenty and twenty-five Fathom; and a soft owzey Bottom, only off the *Punta de Caribana*, it is full of Stone Ridges and Shallows; this Point or *Punta* is low Land. If you come this Way, in case of need, you may send a Boat ashore, any where between the Mountains *del Aquila* and *Cartagena*; for here you'll find Towns of civilized *Indians*, which go to *Tolu*, and to the River of *Sinu*, to pay their Tithes with Cattle. From the Cape *Tiburon* runs towards N. W. a Bay called *El Playon*; all over which there are many Islands and Shoals; they all lie N.W. and S.E. with the said Cape *Tiburon* and *Punta de San Blas:* The most Part of these Islands are surrounded with Shoals, sunken Rocks, *&c.* but all have small Channels between them, which require a Man of Skill and Experience to enter and navigate thro' them; the Privateeers and Pirates are wont to take shelter and careen in the Ports of this Bay, for the Islands, that are without, secure them from all Winds, and here they can take in Water.

But

But to return to our Marks to know the Coaſt, you muſt obſerve, that from Cape *Tiburon* towards the N.W. there runs a continued Ridge of Hills, with five or ſix Breaks, near the Sea Coaſt, which are called *Tiende Ropa*; from thence, along all the Bay of *Playon*, are ſome high Mountains, as far as *Cabeca de Catuca*, which is a great Hill; and from hence toward the N.W. run the Hills of *St. Blas* or *Sierras Lloronas* (or *Crying Hills*) which terminate upon *Punta de St. Blas*, and make a Break in the Figure of a Saddle; ſo that from *Dariel* to Leeward all is high Land, and higher on all the Bay of *Playon*; whereas it is lower on the Coaſt of N. E. and S.W. to wit, from *Dariel* to *Cartagena:* Now when you are upon the Coaſt of E. and W. which is that between *Punta de St. Blas* and *Porto Bello*, you'll ſee the *Crying Hills*, or the Part that looks like a Saddle; from which to the Weſtward, run ſome even Hills, called *Punta de Crux*; along the Sea Coaſt the Land is low, near the River of *Eſcribanos*, or of *Franciſco*.

*To go from* Cartagena *to* Porto Bello *in Time of the* Trade Winds.

In coming out of *Cartagena*, at *Boca Chica*, to go to *Porto Bello*, in Time of *Trade Winds*, you muſt direct your Courſe towards

towards the W. N. W. between *Sal Medina* and the Iſlands of *Baru*; and when you are abreaſt of *Theſoro*, which is the outermoſt Iſland of *Baru*, ſteer Weſtward, 'till you reach the *Punta* of *St. Blas*, or the *Cabeca de Cativa*; and from thence direct your Courſe S W. 'till you come in ſight of the ſaid *Punta*; but if you judge you are upon it, and the Night overtakes you, without ſeeing it, your beſt way will be to brace to, with your Head off to Sea. leſt you ſhould run upon the ſaid *Punta de St. Blas*, which is not clear; and Eaſtward of it lies the Iſland *del Agua*; but, having lain by 'till Break of Day, direct your Courſe to the S.W. to make the Land of the Coaſt that lies E. and W. for by the Marks and Signs above-mentioned, you'll know where you are; and when you are paſt the Point of *St. Blas*, you muſt keep out, (yet in ſight of the Coaſt) which is better than to come too near the Land; becauſe the *Trade Winds* make a great Sea upon this firſt Part of the Coaſt of E. W. and from the River *del Eſcribanos* the Coaſt is ſhallow as far as *Nombre de Dios*. Coaſting along in this manner, as ſoon as you ſee the Land higher towards the W. S. W. you muſt keep into

into the Shore, to fall in with *Nombre de Dios*, and to the Weſtward you'll ſee the little Iſlands of *Baſtimentos*; Southward of which lies the Bay of *Nombre de Dios*, where the Galleons uſed to come in formerly; it is about ſix Leagues from *Porto Bello*. When you are upon theſe little Iſlands, you may either go without them, or keep the Land a-board, and ſail within them; in either Caſe you'll ſee the Land a-head, near which lies a little high Iſland, called *Drake's Iſland*; between this and the Main, there is a Channel of four Fathom, and to the North-weſt of *Drake's Iſland* lies the Shoal of *Sal Medina* off *Porto Bello*, which you'll know immediately by the Breakers upon it, and any Galleon may paſs between the ſaid Shoal and *Drake's Iſland*, or without it; for, on either Side there is Water enough, and when you reach the Port, your Courſe is S. E. into the Harbour, where you anchor before *Porto Bello*.

In another Deſcription I ſhall explain this Entrance of *Porto Bello* with that of *El Nombre de Dios*.

*To go from Cartagena to Porto Bello in Time of* Land Winds.

If you ſail from *Cartagena* to *Porto Bello* in Time of the *Land Winds*, you muſt firſt direct your Courſe to W. N. W. 'till you are

are in the Latitude of eleven or twelve Degrees, to get into the *Trade Winds*, which Courſe will carry you clear of the Iſland of *St. Andres*; for altho' you may anchor near it, and take in Water, yet, if there is no neceſſity, 'tis better to avoid it, becauſe there are ſome ſtony Ridges, on the South Side, at ſome Diſtance from the Iſland; and towards the Weſt of it are the *Cayos de la Magdalena*; but in twelve Degrees of Latitude you are intirely ſafe, and got beyond the ſaid Iſland of *St. Andres*. From this Latitude, which you muſt not exceed, ſteer S.W. to get ſight of the *Excudo de Veraguas*, or the Hill of *Suerre*, which is a very high Hill, as round as a Sugar-Loaf, and lies on that Part of *Coſta Rica*, which runs N.N.W. and S.S.E. It is beſt to fall in with this Land in eleven Degrees of Latitude; for, altho' you ſail in with the *Trade Winds*, yet, when you are in Sight of the Coaſt, you'll not be long without *Land Winds*, which are the Winds we deſire to meet with upon this Shoar in ſailing to *Porto Bello*. The Reaſon for making this Coaſt, rather than that of *Porto Bello*, in time of *Land Winds*, is, that the Currents in this Seaſon ſet towards the Eaſt, and the

*Iſland of* St. Andres.

S.

S. W. Winds blow off the Land, at the ſame time that the *Trade Winds* blow without, in ſuch a manner, that the *Land Winds* do not reach far to Sea, nor the *Trade Winds* come very near the Land.

In looking out for *Porto Bello*, if you find your ſelf upon the *Baſtimentos*, and meet with the *Land Winds*, you'll not be able to reach the Port; for the Current will ſet you to the Eaſt, on which Account you muſt keep out, that you may have the *Trade Winds*, with which you can ſail towards the W. to make the ſaid *Coſta Rica*; from whence, with the *Land Winds*, you may ſail Eaſtward, coaſting in Sight of the Shore as far as *Porto Bello*, taking ſpecial Care of not going too far to the Eaſtward of it; for, if that ſhould happen, it would oblige you to put out again to Sea, to ſeek for the *Trade Winds*. Being therefore in Sight of the *Pan de Suerre*, (which, as we ſaid before, is a Hill as high as the *Sierras Nevadas*, or Snow Hills of *Santa Martha*) you muſt ſteer to the S. E. and look out for *Excudo de Veraguas*, which is a low Iſland, 2 Leagues from Land, that lies on the Coaſt of E. and W. and has a little Eminence

Eminence or Headland, extending out to the Sea.

You may know that you are upon this Iſland, when you ſee within Land, towards the S. ſome middling Hills, running E. and W. called the Hills of *Veraguas* or *del Almirante*; becauſe they lie on the Bay *del Almirante*, which ſome likewiſe call *las Bocas del Toro*, or the Mouth of the Bull, that lies to the W. of the Iſland of *El Eſcudo*. In the ſaid Bay, near its Entrance, are ſome low Iſlands, without any Channels between them. The Bay *del Almirante* is large and ſpacious, where Pirates and Privateers reſort and take ſhelter; it is peopled with *Caribbee Indians*, ſo that you muſt not ſend any Boat to Land; but when you come to this Coaſt of *Excudo de Veraguas*, if there is Occaſion, you may anchor on the Eaſt Side of it, which is clean Ground, as likewiſe upon any Part of this Coaſt, from *Veraguas* as far as *Porto Bello*; for, all the Coaſt has good anchoring Ground, and the Bottom ſandy: And ſailing along Shore towards the E. with the *Land Wind*, you muſt take care not to keep too far out; for, the Currents ſet ſtrong to the Eaſtward, and by leaving the Coaſt, you may happen to be put beyond the Port,

and

and be obliged to turn back, as I ſaid before; you may know this Coaſt well, and be ſure that you are at *Veraguas*, when it begins to run E. and W. (for, from the Bay *del Almirante*, the Coaſt runs towards N.W. and N. N. W. as far as *Suerre*, and then to the Lake of *Nicaragua*) and you'll find that from the *Excudo de Veraguas*, ſome high Mountains or Hills, with a great Break in the Middle, run towards the Eaſt, and are called *las Sierras de Cloque*, which lie towards the Eaſt of the River *Cloque*. Having paſſed theſe Mountains, when you are to the Eaſtward of them, the Land runs even, and moderately high, with ſome ſmall Hillocks; over which, at a little Diſtance, there appears, on the Eaſt Side, a ſharp high Hill, in the Form of a Sugar-Loaf, called *Miguel de la Borda*; from it, they ſay, one may alſo ſee the other Ocean, or *Great South-Sea*; for, in this Place, and between *Porto Bello* and *Panama*, lie the neareſt Diſtances from one Sea to the other. Upon this Coaſt of *Miguel de la Borda* a low Land runs on toward the Eaſt, with Cavities or hollow Places, that look reddiſh, and reaches as far as the River of *Chagres*, which has a Fortreſs, and a Town of *Spaniards*, and is fit

Rio de Chagres.

fit only for middling Veſſels. On the South Side of the Hill of *Miguel de la Borda* begin ſome Mountains, that run W. N. W. as far as *Suerre*, and are called the Hills of *Salamanca*; but ſailing along the Coaſt, it will be found, that toward *Chagres* the Land riſes a little higher, as alſo beyond *Chagres* for about a League towards the E. Then you will meet *Porto de Naos*, and from this Port the Land within begins to riſe, and is called the *Sierras de las Minas Vieias*, or the Hills of the *Old Mines*, that run as far as *Porto Bello*; but, near the Sea Shore, the Coaſt of *Chagres* is lower to *Porto Bello*, along which as you ſail, the Port *de Naos* will be ſeen to the Eaſtward, about two Leagues from the Iſland of *Naranjos* or *Orange Iſland*, near the main Land, is a Channel which is only fit for large Boats. In the Coaſt between *Chagres* and *Porto Bello*, ſometimes a rough Sea ariſes from the *Trade Winds*; and in Time of the *Land Winds* there are ſome very dark and dreadful Nights, with much Lightning and ſome Thunder; but often the Lightning vaniſhes without Thunder; and tho' the Nights ſhould prove favourable, yet, it will be neceſſary to go with a great deal of Care between *Chagres* and *Porto Bello*.

If you ſhould happen to be there in ſuch Nights, anchor about a League from the Shore, in twenty or twenty-five as far as forty Fathoms, and do not come into leſs Water; becauſe near Land the Sea is rougher than it is without, and the Currents have more Strength; beſides that, from fifteen Fathom towards the Land it is foul Ground.

*From* Porto Bello *to* Cartagena.

Sailing out of *Porto Bello* for *Cartagena*, direct your Courſe towards the N. W. 'till you arrive off the North Side of the Shoal of *Sal Medina*, and if you have the Wind large, ſteer E. by N. 'till you are N. and S. with the *Cabeca*, or Head of *Cachiba*; and *Punta de St. Blas*; and from thence continue your Courſe E. looking out for the Iſlands of *Baru*; when you have ſeen theſe, and are got clear of them, ſteer E. S. E. to enter *Boca Chica*.

But, if you come from *Porto Bello*, with the *Trade Winds*, you muſt traverſe to Windward from *Porto Bello* to *Punta de San Blas*, governing your ſelf according to the Winds, which in the Day are Northerly, and in the Night N. E. take care not to come too near the Shore, but only keep in Sight of it. At Sun-ſet you muſt ſtand out 'till Break of Day, and then tack and make in again to the

the Land; for, in this manner, you muſt coaſt along Shore, obſerving what Courſe you take by Day and Night, 'till you arrive at *Cabeca*, *Cactiba*, *Punta de San Blas*, and the Iſlands *del Aqua*; as ſoon as you diſcover to the Southward ſome high Hills, which are thoſe of *Tiende Ropa*, you'll have got your Paſſage; and then ſailing to the Eaſt, you'll go ſafe; when you arrive at the Iſlands *del Aqua*, ſteer E or E. S. E. as the Winds permit, to make the Coaſt of N. E. and S. W. or the Hills *del Aquila*, *Iſla Fuerto*, and Iſlands of *Baru*; for, in any Port you come to upon this Coaſt, you may anchor, if there be Occaſion.

When you have made *Iſla Fuerto*, ſteer N. E. or N. E. by N. for, by this Courſe you'll get into the Weſterly Winds Way that blow in the Day-time, and then you may ſail N. W. for, in the Night-time here are very favourable Winds: In this manner you may work to Windward along the Coaſt, provided you keep two Leagues off; for, then you are ſafe, and will find a muddy Bottom; from the *Iſla Fuerto* you muſt keep the ſame Courſe, 'till you come in with the Iſlands of *San Ber-*

*nardo*; and then ſteer to the North, to make the Iſlands of *Baru*; for, near them, on the South Side, there is no Bottom to be found: And thus you muſt ſail N. or N. N. W. 'till you come to the *Iſla del Feſoro*, which lies to the E. S. E. and from this Iſland the ſame Courſe will bring you to *Boca Chica*; if you cannot reach the Port of *Cartagena* in the Day-time, you may ſail to *Porto de Naos*, and anchor there to paſs the Night; it is a little Bay that lies two Leagues to the Leeward of *Boca Chica*, and may be known by a ſmall Hill on the Shore, much like the Hill *de la Popa*, called *Perico*, and is as round as a Sugar-Loaf, one Point of which runs out to the Sea: Near this Point you'll enter *Porto de Naos*, and anchor in fifteen or ſixteen Fathom of good Ground.

*To go from* Cartagena *to* Havannah.

In ſailing out of *Boca Chica* from *Cartagena* for the *Havannah*, either cloſe haul'd, or with a large Wind, you may go between *Sal Medina* and *Terra Bomba*, 'till you are N. and S. with the City of *Cartagena*, and as far as the *Punta de Canoa:* If you ſhould be oblig'd to anchor in paſſing between *Terra Bomba* and *Sal Medina*, for want of Wind, before you have got to the Eaſtward

of

of *Boca Grande*, which is on the *Playa Granda*, or *Great Shore*; you muſt not caſt anchor there, becauſe the Water is too deep, and the Ground bad; but rather incline to the Shoal or *Sal Medina*, for thereabout you'll find a Bottom of Mud, with twenty or twenty-five Fathom Water. If you are a-breaſt off *Cartagena*, and free from *Sal Medina*, on the Eaſt Side, ſtand out to Sea, ſteering North, or more to the Windward, if the Weather permits; ſo that you are ſure your Ship makes a N. N.W. Courſe, you may ſail without Fear; for, you'll paſs between the *New Shoal* and the *Engliſh Shoal*, and alſo between the ſaid *New Shoal* and the *Vibora* or *Viper*, without ſounding on either, and obſerve, that, upon quitting the *Playa Granda*, or *Great Shore*, you take in your Top-ſails, for fear of meeting with many hard Guſts, that often happen near the Coaſt, for the firſt and ſecond Night, till you are out at Sea, and clear of theſe Squalls of Wind, by which many Ships have been damaged.

Having ſteer'd your Courſe Northward, when you find your Ship in the Latitude of fifteen Degrees, and thirty Minutes, take

care of the *Engliſh Shoal*, which lies in that Latitude; for, if you ſail but one Point to Leeward of N. N. W. you'll be upon it, and if you make your Courſe N. by W. you'll paſs by the Eaſt Side of the ſaid *Engliſh Shoal*, and fall in with the Middle of the Shoal of *Vibora*, or the *Viper*, which lies in the Latitude of ſixteen Degrees fifty Minutes.

Keep therefore the ſaid Courſe, 'till you arrive in the Latitude of ſixteen Degrees and forty Minutes, and if you have paſſed to the Eaſtward of the *Engliſh Shoal*, and do not find Soundings, you will be upon the Middle of the *Viper*, which is ſo ſteep too on the South Side, that half a League from it you may plainly ſee its Breakers, and find no Soundings; and if it ſhould happen that you are in this Situation towards Night, without diſcovering the ſaid Breakers throw her Head off to the Southward, and lie by 'till Day; and then ſteer to the N. W. to gain Sight of the ſaid *Viper*, or to meet with Soundings on the Weſt Side of them; for, Weſt of this Shoal of the *Viper* you'll find Soundings in the Latitude of ſixteen Degrees and forty Minutes, where there is a ſort of a Bay.

If

If you ſteer North from *Cartagena*, in the Time of *Trade Winds*, you'll go between the *Engliſh Shoal* and the *New Shoal*, without ſeeing either, (tho' ſometimes the *New Shoal* has been ſeen, yet that ſeldom happens) and when you are got to the Weſtward of the *Viper*, you'll meet with Soundings, as we ſaid before, and note the ſaid *New Shoal* lies about N. and S. with the Weſt End of the ſaid *Viper*; therefore, when you have here met with Soundings, run to the S. or S. S. W. to get into deep Water; and having loſt the Soundings, ſteer to the N. W. 'till you find the Bottom again, and then ſtand to the Southward again, into deep Water, 'till you can find no Bottom in your Courſe to the N.W. for, then you have left the *Viper* on the Eaſt Side.

Upon this Bank of the *Viper*, on the North Side of the Shoal, is very good anchoring, and there is no Danger in ſailing over it; if you avoid the ſtony Ridges that may be ſeen to the Eaſtward, and there are two or three little ſandy Iſlands, near which the Ground is clean: In this Paſſage, and off the ſaid Iſlands the Sloops from *Jamaica* come to fiſh.

Having purſued this Courſe into the Latitude of ſeventeen Degrees, you are entirely clear of Danger; for, altho' you be within the Soundings of the *Viper*, provided you are in ſeventeen Degrees of Latitude, you'll be on the North Side of the ſtony Ridges, and in the Middle of the Bank which is clear from thence to the Northward, and then you may ſteer N. W. if the Winds are favourable; for, the Current ſets to the N. and by this Courſe you cannot fail of ſeeing either the *Great* or *Little Caimanes*, (which are Iſlands to the S. of *Cuba:*) If the *Trade Winds* blow freſh, ſteer N. W. by N. (for with theſe Winds the Current ſets S. W.) and you'll fall in with ſome of the *Caimanes*; the two ſmall Iſlands lie in the Latitude of nineteen Degrees, and forty Minutes, and are about a League aſunder, between which any Ship may paſs: The firſt and Eaſtermoſt is plain, and full of Mangrove Trees; and the Point on the Eaſt runs out to the Sea, near it there is a ſmooth Paſſage; the Weſtermoſt Point is flat and even. On one Side the Coaſt lies W.S.W. and E.N.E. The other runs almoſt E by N. and W. by S. and is flat, even, marſhy, and full of little Hills, ſo that it looks like many

ſmall

ſmall Iſlands, till you come near it, and then you find it is but one: Both Shoars have many ſandy Banks, that look red, and may be coaſted without Fear, becauſe they are clean and ſafe, with deep Water.

The *Grande Caiman*, lies in the Latitude of nineteen Degrees twenty Minutes: This Iſland is low, and from E. to W. is covered with high hummocky Mangroves; it has many Ridges of Rocks that may be ſeen when you come near it, to run about half a League into the Sea; the firſt on the Weſt has a great deal of Sand, and here makes a Bay. If you are in the Latitude of twenty Degrees, and have not ſeen the *Caimanes*, you are got to the North Side of them; and may have gone through them, between the large and the ſmall; or you may have paſt by the Weſt Side of the *Grande Caiman*, without ſeeing them; in which Caſe, direct your Courſe to the N.W. and you'll come in Sight of Cape *Corrientes*, which is an even Land, moderately high, with ſome Tufts of Trees; one of which Trees looks like a Watch Tower. When you are off this Cape, to be more ſure of it, you'll ſee to the Northward ſome high Mountains full of Ridges, which lie on the other Side of the Iſland of *Cuba*,

upon

upon the River of *Puercos*; and ſome call them *Las Sierras del Potrero*; others, *Sierras del Roſario*; for in this Situation you can ſee no other; they appear off at Sea to be two Hills: To this Cape *Corrientes* you are not to come too near, 'till you are N. and S. with it, for to the S.W. about a League and a half from Land, a Rock lies under Water.

But when you have paſſed thro' between the *Caimanes*, if the firſt Land you ſee lie to the N.W. with three Eminencies or Hills, (of which the middle one is larger than the other two) you may be ſure it is the Iſland of *Pinos*, for ſuch an Appearance it makes at Sea; near to it you'll diſtinguiſh, that the Hill to theEaſt is ſharp pointed; and nearer to them, when you diſcover the low Land of the ſaid Iſland, you'll ſee to the Eaſtward, a continual Ridge of Shoals, which lie off the Eaſtermoſt Point of the ſaid Iſland *de Pinos*: Theſe Shoals are called the *Jardines*, and run Eaſt and Weſt; when you ſail along this Iſland of *Pinos*, you'll ſee at the Weſtermoſt Point of it four or five ſtony Ridges, between which and the Iſland you may anchor, in caſe of Neceſſity, for it is good anchoring Ground and ſhelter'd from the Winds; and ſteering from henceto the

Weſt

Weſt or N.W. you'll come in Sight of Cape *Corrientes*, as aforeſaid.

The Ships that trade to *Trinidad* in *Cuba*, when they come from *Cartagena*, take the aforeſaid Courſe; and as ſoon as they meet with the *Vibora*, or *Viper*, they croſs over it, entring it's ſmall Channels, between the ſtony Ridges, endeavouring to make the *Punta del Negrillo* of *Jamaica*; from thence having ſeen it they ſteer to the North, by which Courſe they commonly make the ſmall *Caimanes*, and continue that Courſe, 'till they make the *Cayos de Cavillones*, and the *Jardin de la Reina*, or *Queen's Garden*; ſailing thence into twenty-one Degrees of Latitude, they keep a good Look-out; for if they ſee Land they are upon the *Cayos de Cavillones*, which lie E. and W. and immediately after run N. W. and S. E. Thoſe of the *Jardin de la Reina* they leave at a Diſtance, becauſe the ſaid *Cayos de la Reina*, run along 'till they terminate near the River of *Trinidad*, and if they come not in Sight of the ſaid *Cayos*, they always ſail to the Northward 'till they make ſome high Hills, for on the Weſt are the two Hills of *Gavilan*, higher than thoſe on the Eaſt, which are the Hills of *Santo Eſpirito*; when they are to the Northward they ſtand

La Trinidad de Cuba.

ſtand in for them, and paſs between the *Jardin de la Reina*, and thoſe near the Iſland of *Pinos*, which lie in twenty-one Degrees and thirty Minutes; in this Manner, ſailing 'till they ſee the Hills of *Gavilan*, and are off the River of *Trinidad*, which is only fit for Veſſels that draw about fifteen *Palmos*, or ten Foot Water, and lies at the Weſt End of the ſaid Hills, near the End of the *Jardin de la Reina*. From the River of *Trinidad*, to the Eaſt, run the Hills and the Bay of *Santo Eſpirito*, and the *Manſanillo*, which ends at Cape *Cruz*; and without the Coaſt, the *Cayos del Jardin de la Reina*, and thoſe of the *Cavilones*, run 'till near Cape *Cruz*: To ſail into *Santo Eſpirito*, and the *Manſanillo*, requires an experienced Pilot, as well as a Veſſel of a ſmall Draught of Water, becauſe there are many Shoals in this Bay of *Manſanillo*. All this Sea between the *Jardines de Iſla de Pinos*, and the *Jardin de la Reina*, and *de la Trinidad*, as far as the Bay of *Xagua*, is a Gulph, and therefore you muſt ſail with the utmoſt Care.

*Another Courſe from* Cartagena *to the* Havannah.

In your Courſe from *Cartagena*, when you leave *Playa Grande*, or *Punta Canoa*, if the Wind ſhou'd hang Eaſterly, ſo that you can't

can't lie nearer than N. by W. or N. N. W. you muſt obſerve that when you arrive in the Latitude of 13 Degrees and 30 Minutes, if the Night comes on, ſo that you cannot ſee the Shoal of *Roncador*, you muſt lay your Head off to the S. E. and lie by 'till Morning; if you then diſcover no Land, purſue your former Courſe of N.N.W. in the Day, and brace to, with your Head to the S.E. every Night, 'till you gain the Latitude of ſeventeen Degrees; for then if you have not found any Shoals, you'll have paſs'd between the *New Shoal*, and the *Serranilla* in fifteen Degrees and thirty Minutes; if you judge that your Ship has latch'd to Leeward, or to the N.W. take care to ſound; for you may fall on the Shoal *de la Serranilla*, which if you find Soundings upon, ſtand off to the Southward till you loſe them, traverſing thus till you loſe the Soundings to the N.W. and by that Means you'll go clear to the Leeward or Eaſt of the *Serranilla*: But if you judge you are on the Weſt Side of the *Serranilla*; and obſerve that in ſtanding off towards the N.N.W. the Soundings do not decreaſe, then you are upon the Banks of the Cape *Gracias de Dios*; for from them to that of the *Serranilla* there is but a ſmall

Diſtance)

Diſtance) and that Courſe will carry you clear of it: But if you ſhould leſſen the Soundings, in ſteering N.N:W. you are then coming upon the *Serranilla*, which you are to avoid as aforeſaid, and being clear of it, (either by paſſing on the Weſt Side, or on the Eaſt) ſteer your Courſe N.W. by N. and you'll get Sight of Cape *Corrientes*; or elſe of *San Anton*, or the Iſland *de Pinos*; if you have paſſed to the Eaſtward.

*To ſail from Cape* Tiburon *to the Port of* Cuba.

If you are off Cape *Tiburon*, and would ſail to the Port of *St. Jago de Cuba*, you muſt ſteer N.W. between the ſaid Cape and the Iſland *Navaza*; to the W. of this Cape, about four or five Leagues, lies a ſmall Bank of eight and ten Fathom Water, which you may ſail over without Danger.

But, if you direct your Courſe N.N.W. you'll fall in with the Bay of *Guantanamo*, where the Land is high; and from Point *Maizi*, which is the Eaſt End of the Iſland of *Cuba*, all the Coaſt along the South Side is high Land, and even Hills, as far as the *Sierra* or Mountain of *Guantanamo*, or *Santiago*, which lies a League to the Weſt of the Bay of *Guantanamo*; and all this Coaſt has deep Water, ſo that you may ſail cloſe along the Land: The *Sierra*, or Mountain

Mountain of *Guantanamo*, may be known by its Form, which is like that of a Saddle, and terminates at the Sea, with a round Top, or high Cliff: A League before you come to this Mountain, lies the Bay of *Guantanamo*, which opens as you ſail along the Coaſt; the Land about it is low, and full of Hillocks: It has its Entry to the N. and is a large Bay, with two Rivers of ſweet Water, which the Pirates and Privateers often frequent. After you have paſſed the ſaid Mountain or Saddle, there is a red high Hill, from which the Land declines, and ſo runs lower to the Weſt 'till it joins the *Sierras del Cobre*, or *Copper Hills*, which are other high Hills that run as far as the *Sierra de Tarquino*; the firſt and Eaſtermoſt of theſe has a Break like unto a perfect Half-Moon, and from this to the Saddle, the Land runs lower; at Sea the Coaſt between theſe Hills ſeems to conſiſt of marſhy Ground: In the Middle of the low Land, between the ſaid Hills, lies the Port of *St. Jago de Cuba*: Thoſe that ſail along the Coaſt, when they are paſſed the Saddle, will ſee ſome Hills that look like Altars on the Sea Shore, and are therefore ſo called; at the End of which lies a ſmall Fort, called *Aquadores*; and coaſting to the Weſt, you'll

you'll perceive it look white. If you happen to be near this Place, in the Night-time, you muſt keep out 'till Day-light to enter *St. Jago de Cuba.*

If coming from Cape *Tiburon*, you would go to Cape *Cruz*, and you are between the ſaid Cape and the *Navaza*, ſteer N. W. and by this Courſe you'll paſs ſafe to the Northward of the Shoal of *las Ormigas*, or *Ants*, which is a Shoal not viſible, but the Water upon it ſeems to be boiling; then look out for the *Copper Hills*, that run from the Leeward of *St. Jago de Cuba*, to the *Sierras* or Hills of *Tarquino*; which are three very high Hills; the laſt or Weſtermoſt, has a round *Apex* or *Top*, that looks as if it had been burnt; theſe are the higheſt Hills on all the Coaſt, which lie E. and W. from Cape *Mayze*, or *Punta de Maizi* as far as Cape *Cruz*.

Upon the Coaſt, below theſe Hills, are three or four Rivers fit for large Boats; and from the Hills of *Tarquino* to the Weſtward the Land declines, for the Diſtance of about a League; and runs even 'till it terminates in a narrow plain Point, called Cape *Cruz*, near which the Ground is foul, and as you ſail along to the Weſtward, you may perceive it's Bank run about two Leagues off, from the Maſt-Head.

To

To ſail from Cape *Cruz* to the *Caimanes*, ſteer W. b. S. 'till you run into Sight of the ſmall *Caimanes*; and having coaſted along the South Side of them, ſteer N.W. to paſs by the North Side of the great one; from thence ſail into the Soundings of Cape *Catoche*; and if you are bound to *New Spain*, or to the *Havannah*; you muſt ſail into Sight of Cape *Corrientes*. Obſerve that in all this Sea of the *Caimanes*, the Currents are variable; and particularly when the Winds are moderate, they run to the N. and N.E. and ſet upon the *Jardines*, in ſuch a manner, that ſailing along the North Side of the *Caimaines*, to make the Cape *Corrientes*, or the Iſland of *Pinos*, ſome Perſons have found themſelves upon the *Jardines*; and have been wreck'd or loſt; others have been driven into Sight of the Hills of *Gavilan*; which lie upon the Bay of *Xagua*, miſtaking it for the Iſland of *Pinos*, when they were really on the North Side of the *Jardines*; and in this Caſe, you muſt free yourſelf by ſteering to the Eaſt, with the *Land Winds*, and endeavour to make the Shoals call'd the *Queen's Gardens*; from thence ſail to the Southward, and look out for the Gardens of the Iſland of *Pinos*, which, if you get Sight

*Cape* Cruz.

*From Cape* Cruz *to* New Spain, *or to the* Havannah.

of, you may anchor on the Eaſt Side of them, in ſix and eight Fathom Water: If your Veſſel is not large you may ſail to the Southward, between the *Cayos*, or Shoals; for there is a Channel, in which you muſt keep a Boat a-head to direct you. In theſe *Cayos* there are ſome that have good Water; when you are on the South Side of them you muſt ſail to the Weſt, to get Sight of the Iſland of *Pinos*; and from thence off Cape *Corrientes*; you muſt not keep too great a Diſtance from the *Jardines*, for ſome, by keeping at too great a Diſtance, inſtead of making Cape *Corrientes*, have been carried by the Currents in Sight of *Coſumel*, or the Iſland of *Mugeres*; and found themſelves in Danger; for after paſſing the Iſland of *Pinos*, the Current commonly ſets to the S. W. and after that to the N.W. between the Capes of *San Anton* and *Catoche*: When you are bound for *New Spain*, or *Havannah*, it is better to get Sight of Cape *Corrientes*, or *San Anton*, than to fall in with Cape *Catoche*.

CHAP.

## CHAP. V.

*Contains a Deſcription of the Coaſt of* Florida, *the Channels, and the Iſland of* Cuba.

WHEN you are up with Cape *Corrientes*, and certain of it by the Grove of Trees, as aforeſaid; if you would go near it, you may ſail ſafely towards it, when it bears N. and S. for then you'll be clear of its Shoals; and when you are round it, there is a Bay to the Eaſtward which affords very good Shelter; where you may clean Ship, or heave down, in caſe of Neceſſity; and if you wou'd go in here, you muſt turn cloſe aboard the Cape, for tho' you ſhould ſee ſome Shoal Patches, or white Water, yet there is no Danger; as you will quickly get paſt it, keeping well up to Windward, 'till you come within the Bay; where you'll ſee a ſandy Shore, upon which you may anchor in five or ſix Fathom Water, or more if you pleaſe, for it is all good anchoring Ground, and clear; tho' you ſee the Bottom with black Spots, it is only

Tufts of Sea Weed, that lie in Heaps at the Bottom, and the reſt is white Sand with Cockle-Shells; at the Brink of the Shore is a good Place to take in Water; and at the End of it, a Grove of Date Trees. After you have paſſed ſome Ridges of Stones, inclining to the Sea, you'll find the ſaid Place for Water. From Cape *Corrientes* the Coaſt runs to the W. N. W. as far as the Cape *de San Anton*, which is the Weſt End of the Iſland of *Cuba*, and is like a Mole built on the Land, that runs out from the Front of the ſaid Iſland; on the South Side of it, the Coaſt is clear and ſoundable, the Land low and full of Trees; of which ſome appear higher than others; at Sea the Trees are to be ſeen before you diſcover the Land, and they look like Ships under ſail, which Appearance has deceived many Perſons.

This Cape of *San Anton*, has about three Leagues in Front, from which three Points run out, that form two little Bays; each of them is a Place to take in Water; but the beſt is on the Northermoſt Point, called *Punta del Manglar*; that on the South is called *Punta del Guanal*; and they all lie N. and S. Near the *Punta del Manglar*, a little to the Eaſt of it, begins the Bank that runs to the

N.

N.E. by the Shoals of *St. Iſabel*, and along the Coaſt as far as the Bay of *Honda*: If you would take in Water upon this Cape, you may anchor upon the ſaid Bank, for in this Part of the *Punta del Manglar*, there is a Spring or Well of good Water; near it there is likewiſe a Lake of good Water, and juſt by it, is a Pit called *de la Sorda*. To the Eaſtward of this Bank, lies the Bay of *Guaniguanico*, which affords good Shelter within, for Veſſels of a moderate Draught; but without the ſaid Bay there are four and five Fathom Water, and ſome Shelter from the North, between the *Cayos*; but a Man muſt be experienced that attempts to paſs between them, to come out near *Bahia Honda*. In ſailing without the Shoals of *St. Iſabel*, when you come upon the Shoal off Cape *St. Anton*, endeavour to paſs in Sight of it, ſteering North; for to the N.W. of the ſaid Cape, about five or ſix Leagues diſtant, lies a Shoal, called *Don Sancho Pardo*; but that Courſe will carry you clear of it, but you muſt luff up to Windward; and if you have a large Wind, you muſt ſail N.E. paſſing by the *Cayos*, and Shoals of *St. Iſabel*, at ſome Diſtance from them, (for they commonly are under Water, and their Breakers are never

to be ſeen;) but when you are upon them, or have ſtruck Ground, you muſt not attempt to ply to Windward near theſe Shoals; for here the counter Currents ſet towards the S. W. and the ſame happens on that Part of the Coaſt which runs E. and W. from the *Cavannas*, to the Weſtward; therefore, it requires a large Wind to go coaſting to the *Havannah*; but with the *Trade Winds*, 'tis better to ſteer your Courſe N. E. or N. N. E. to gain the Latitude of twenty-five Degrees, and find the Soundings of *Tortugas*, which Soundings you muſt loſe again, by ſtanding off to the Southward; and when loſt, and in deep Water, direct your Courſe to the S. E. in Search of the Port of *Havannah*; taking Care from what Part of the Soundings you begin your traverſe; becauſe you may find Ground in twenty-five Degrees of Latitude, or leſs, and it is a material Thing in this Courſe, becauſe you may have Soundings to the Weſt of *Tortugas*, where the Bottom is thick Sand and Gravel, with thirty Fathom Water; from whence 'tis good traverſing to the S. S. E. and the Current will aſſiſt to bring you to the Port of *Havannah*. If you find Soundings in leſs than twenty-five Degrees, and the Bottom white Sand, with

ſmall

ſmall Pieces of Lime, you are on the Weſt Side of the *Tortugas*, and on the Edge of the Bank; from hence you muſt ſail to the S.S.E. but if the Bottom ſhould be reddiſh Gravel, with ſome ſmall Cockle-Shells, you are to the S. W. of the ſaid *Cayos*; from thence you are to ſteer S. b. E. If the Bottom ſhould be of reddiſh Stone, mixed with Mud, you are to the S.E. of the ſaid *Cayos de Tortuga*, and from hence ſail South: If the *Trade Winds* blow freſh, Care muſt be taken becauſe the Current runs very ſtrong to the Eaſt; for which Reaſon endeavour to get ſooner over to the Coaſt of *Havannah*, which you'll ſee in leſs than thirty Hours, for that Time it takes to run over with a freſh Gale. If you ſhould not diſcover it within this Time the Current has been very ſtrong, and you'll fall in with *Matanſas*, or *Porto de Hicacos*.

*Traverſe of the ſaid Soundings to the Port of* Havannah.

If the *Trade Winds* blow moderate, the Current does not run ſo ſtrong to Windward; in this caſe it will take more Time to come in ſight of the Coaſt; wherefore you muſt always compare the Time with the Currents, and other Circumſtances, that may happen to forward or retard your Courſe; which Things ſometimes puzzle the beſt Pilot.

It is very neceſſary to get into the Soundings of the *Tortugas*, to make your Paſſage ſafe; for, ſome have confidently run over at a Venture without once Sounding on the ſaid Bank, and have got upon the Shoals of *St. Iſabel*, and loſt their Ships without ever ſeeing the Land in hazy Weather; but, if you are ſure of the Latitude in which you are, you may guard againſt this Danger: becauſe, in twenty-three Degrees twenty Minutes, you may ſee the Coaſt, from the River of *Puercos*, as far as the Bay of *Matanſas*; and, in this Latitude, if the Land cannot be ſeen, you are near the Shoals of *St. Iſabel*, which, I muſt obſerve to you again, are never ſeen to break but in bad Weather.

*The Shoals of St. Iſabel.*

North and South of the River *de Puercos*, and in the Latitude of twenty-three Degrees and a half, lie the *Mucaras*, which are narrow ſmall Shoals; Care muſt here be taken how you ſail, for fear of ſtriking upon them; but, if you paſs in Sight of them, there is no Danger.

CHAP.

P. Harrison Delin.

# A Plan of the Harbour and City of Havana

## References

a. The Parade
b. A Gate into the Country
c. Castle de la Punta
d. The Fort or Governours Palace
From c to d is a Line where Brass Guns are mounted
e The Morro or Moor Castle

## CHAP. VI.

### *The Signs or Marks of the Coaſt of the* Havannah, *from the Shoals of* St. Iſabel, *as far as the Point of* Hicacos.

*Signs or Marks of the Leeward Coaſt of* Havannah.

IN ſailing over for the Coaſt of *Havannah*, in twenty-three Degrees, thirty Minutes, if you ſhould diſcover, within Land, ſome high Mountains, extending from N. E. to S. W. and two of thoſe Hills round and even, lying between S. and S. W. you are upon the Shoal of *St. Iſabel*; for, thoſe are the Hills of *Guaniguanico*, or *El Potrero*, which lie on the S. Side of Cape *Corrientes*.

*Hills of* Guaniguanico, *or* Potrero.

If you ſhould ſee, between the S. and S. W. a double Land, or two Rows of Hills broken, that run to the E. N. E. Thoſe are the *Organos*, and you'll be to the North of them; they make a ſort of Cleft in the Middle; and at the Eaſt End of them is an Hill, in the Form of a high Sugar Loaf, which lies over the Bay of *Honda*; and under the Cleft, in the Middle of the

*The* Organos.

the Hills, is the River *de Puercos*, which is only fit for ſmall Veſſels; but the Bay of *Honda* is deep, and the Port large enough for a whole Fleet; near to the Shore, is a proper Place to take in Water: Its Entrance runs in South, and clear without any Obſtruction; when you are in, you may anchor where you pleaſe, but you'll find the beſt Ground, near an Iſland that lies in the Bay: To be more ſure of this Port, you'll ſee in the Up-land, to the South of the aforeſaid Sugar Loaf, ſome Hills of a moderate Height, call'd *Sierras del Roſario*, or *de la Bréa*; for, the *Organos*, and the Sugar Loaf lie near the Sea-Coaſt; if the Day is clear, you'll ſee all theſe Hills and the Land diſtinctly.

Cavannas. If you are at Sea, off the Coaſt of *Cavannas*, you'll ſee, within Land, a round and high Hill with a ſmall Break; it has a little Wood at the Top, and another high Hill, called *Pan de Cavannas*, or the *Loaf of Cavannas*, or of *Guai Jaibon*; and near the Sea-Coaſt a double Row of little Hillocks, like unto Shepherds Cottages, from which they take their Name; theſe run to the Eaſt of *Bahia Honda*, as far as *Mariel*, and the aforeſaid Loaf appears over the Top of the Hills *de Cavannas*, near the midſt

of

of them, where the River of *Cavannas* lies, and is fit for Veſſels of a moderate Burthen.

When you fall in with the ſaid Coaſt of *Cavannas*, and are N. and S. with the ſaid *Sugar-Loaf*, you'll ſee to the S. E. the Land marſhy, with two Hills in Appearance like two little Iſlands; and beyond theſe, to the Eaſtward, lies the Port of *Havannah*; but, when you come near the marſhy Coaſt, you'll diſcover, that Part of it, which appear'd to be two Iſlands, are two Hills upon the Land, whereof the Eaſtermoſt is the greateſt; they are called *las Mezas*, or *Tables of Mariel*. They are all plain and level at the Top, and the Eaſtermoſt makes with a Point like a Proa of a Row-Galley towards the Eaſt, and ſhews from the Point upwards like two Steps of a Stair-Caſe; about the Middle of the great Table Hill, it ſhews with two or three white Hollows like unto Ships under Sail, when ſeen out at Sea. At the Weſtermoſt End of the leſſer Hill lies *Port de Mariel*, which affords very good Shelter, and ſufficient for any Veſſel; to enter which, you muſt make the ſaid Weſt End of the leſſer Hill, and then you'll ſee the Mouth of the Port, into which you muſt ſail, keeping moſt over to the Lee Shore, 'till you

*The Port of* Mariel.

you are within the Entrance, and then luff up and anchor under the Windward Shoar of the Port *de Mariel*, where there is more Shelter from the Sea and Wind; on the ſame Side there is ſweet Water, that runs clear from a Rock: when you arrive off the ſaid two Hills or Tables, at the Eaſtermoſt End of the great one, you'll ſee the Head or *Morro*, or *Mountain* of the *Havannah*; but if you come in from Sea, and fall in with the ſaid Tables, you'll diſcover in the Up-land, two middling round and even Hills, like a Woman's Breaſts, which from their Form, are call'd *las Tetas de Maria*, or the *Paps of Mary*. When theſe Hills come in Sight to the Eaſt Side of the ſaid Tables, and they bear N. and S. with you, then you'll be alſo N. and S. with the Port of *Havannah*. Theſe two Paps, and the two Tables, are the principal and only Marks for this Port.

*The Port of the* Havannah.

*Advertiſement* If in ſtanding in for the Land, with the *Trade Winds*, you come near the Shoals of *St. Iſabel*, or the *Organos*, tack and ſtand off to Sea, into twenty-four Degrees of Latitude, and from thence make in for the Land; there is no Neceſſity to keep the Lead, for the nearer you come to this Leeward Coaſt of the *Havannah*, the ſhorter will be the Off-ſhore Tacks, and the ſooner you'll

you'll gain the Port; for if you ſail too far from the Coaſt out to Sea, you'll meet with ſtronger Currents, and when you come in again to the Land, may be to the Windward of the Port, ſo much, perhaps, as to cauſe you much Delay and Trouble to gain the ſaid Harbour.

*Signs of the Coaſt of the* Havannah *to the Windward.*

But in Caſe you fall in to the Windward of the Port of *Havannah*, and ſhould ſee towards the S.E. a high Mountain within the Land, ſomewhat round, with a Break in the Middle, that makes it look like two different Hills: Theſe are the Hills of *Camarioca*, which lie to the South of *Punta de Hicacos*; and on the Weſt of theſe is another Hill, with a round Loaf upon it, called *El Pan de Matanſas:* There are likewiſe ſome Hillocks, that lie N. and S. with the Bay of *Matanſas*; to the Weſt of which are ſome ſmall Mountains, called *Arcos de Cantaſi*; when they bear N. and S. with you, you'll find that the *Pan de Matanſas*, lies S.E. with *Cantaſi*; towards the Weſt, is a Ridge of ſmall Hills, called *las Sierras de Taruco*, that lie E. and W. when the *Arcos de Cantaſi* bear N.W. and S.E. you'll be N. and S. with the Hills of *Taruco*, and when theſe Hills bear N.W. and S.E. you'll be N. and S. with the Port of the *Havannah*, and likewiſe N. and S. with the *Tetas*, or *Paps of Maria*.

*Hills of* Camarioca.

Pan de Matanſas.

Arcos de Cantaſi.

Sierras de Taruco, *or Hills of* Taruco.

In

In the Middle of the Mountains of *Taruco*, lie ſome white Cliffs on the Sea Coaſt, called the Cliffs of *Suyarima*; off which is a Bank that reaches above a League and a half into the Sea, and two Leagues wide, with three and four Fathom Water, fit for middling Veſſels, but in a large Ship you muſt take great care; for on all the reſt of this Windward Coaſt, from the *Matanſas* it is deep Water, and ſteep to the Shore; if you happen therefore to fall in with it, don't keep too far from the Land, becauſe of the Currents without; run along the Weſt Coaſt 'till you have paſſed the Hills of *Taruco* and diſcovered the ſmall Fort of *Cojimar*; which lies a League to Windward of the Port; from whence you may ſee the Head or *Morro* of *Havannah*, and arriving off this Fort, endeavour to go clear to Windward of its Point, becauſe a Shoal runs out a little way from it; but as ſoon as you bring open the Fort, you are quite clear of it, and cloſe to it you may anchor in five or ſix Fathom Water; from hence you are to ſail along the Coaſt, 'till you arrive off the ſaid *Morro*, and diſcover the Caſtle *de la Punta*, and the ſmall Fort *de la Chorrera*; which lies to the Leeward of the Port; and when you are off the Caſtle

Cojimar.

Caſtle *de la Punta*, and have brought the Port open, then ſpring your Luff, and run into the Harbour of the *Havannah*.

If the Night ſhould come on when you are near the ſaid Port of *Havannah*, and to Leeward of it, ſtand in towards the *Mezza grande de Mariel*, and then brace too 'till Morning, when you may get to Windward with the Land Breeze, and arrive in a few Hours off the Fort, and turn into it; to enter it the better you ſhould wait till Mid-Day, for then you'll have a brisk Wind to ſail in with. If Night overtake you to the Windward of the Port, keep cloſe to *Cojimar*, and brace too with the Ships Head off to Sea 'till Break of Day; if you are either to Windward, or to Leeward of the Harbour, and want a Boat from Land, fire off a Piece and ſhew a Light, for if they ſee or hear you from the *Morro*, they will anſwer you; and at Break of Day, if you are upon *Cojimar*, make little Sail, or lie by 'till Ten o'clock, and when you are up with the *Morro* you may enter the Port. I caution you to keep the Ship's Head off to Sea, in the Night-time, and lie by, becauſe this Coaſt is full of Eddies and counter Currents, which may run the Veſſel a Shore; and if it happen that you drive towards the Coaſt,

it

it is then eaſy to run off to Sea: But if you lie with her Head to the Land, it will be a hard matter to ware her; therefore always avoid traverſing, as well as laying with your Head towards Land; and on theſe Conſiderations it is needful to have regard to the Coaſt, particularly for thoſe that navigate in great Ships; for tho' on other accounts they are the beſt Veſſels, yet, when they come into little Water, or near the Ground, the greateſt Danger attends them.

*To go to* Havannah *by the* Old Channel.

To go to *Havannah* by the *Old Channel*, you muſt ſail in Sight of

Punta de Mayſi.

*Punta de Mayſi*, which is on the Eaſt Side of the Iſland of *Cuba*; the Front whereof lies N. E. and S. W. The S. W. Side ſeems double, and the Surface of the Land as even as a Table on the Top, from whence it declines towards the N. E. and terminates in a plain Point: All this Front has regular Soundings, and deep home to the Shore; when you are on the North Side of the ſaid *Punta*, you may anchor cloſe to the Coaſt: Two Leagues more to the Weſt of this *Punta*, there is a ſmall Port, called *Matan*, where you may alſo anchor; running Weſt along the Coaſt you'll ſee a Shore which is called *Playa de Miel* or the *Shore of Honey*, that lies five Leagues from *Punta de Mayſi:* Near

to

to this Shore you may ſafely anchor, in eight Fathom; and here the Ships caſt anchor which come in to take a Pilot at *Baracoa*; the Mouth of which lies about a League S. W. of the Honey Shore; It is a good Port with deep Water; the Courſe into it is S.W. tho' many avoid entering it becauſe it is troubleſome to come out again, for the Wind blows right in, and 'tis ſo very deep Water, you can't well warp out; it has a little Iſland in the Middle, and a Shoal near the Land to the Eaſtward.

When you are off the *Punta de Mayſi*, you may ſee the Eaſt Coaſt which is double Land, and at the Beginning of it, is the Deſcent of an Hill that looks like a Smith's Anvil, and is called *el Ayunque de Baracoa*, or the *Anvil of Baracoa*, which lies upon the ſaid Port of *Baracoa*, therefore ſteering your Courſe towards it, you ſail directly for the Port of *Baracoa*; and when you ſee it to the S.E. ſtand in to the Land, to diſcover the Honey Shore, where you may caſt anchor to get a Pilot, or provide yourſelf with Neceſſaries at *Baracoa*. Baracoa.

## CHAP. VII.

### *Containing Obſervations of the* CURRENTS, *and the* VARIATION *of the* COMPASS.

*Of the Nature and Properties of* Currents.

THE *Currents* are every where the greateſt Obſtruction a Pilot meets with; becauſe they are only to be known by Experience and Obſervation: The common Opinion is, that they are cauſed and governed by the Wind, eſpecially in the Seas of *North-America*, which abounds with a Multitude of Iſlands and Shoals, that lie along its Coaſts. And altho' without the Windward Iſlands, and on the reſt of the Coaſt of *North-America*, there are Currents alſo, yet theſe abate their Force, and are loſt when they come into the open Seas; neither have they, with high Winds, ſuch Strength, as within the Iſlands, where we find Currents continually, and their Force anſwerable to that of the Winds, as Experience has ſhewn; for, when the Winds blow high, the Current is ſtrong; and

and, on the contrary, weak in calm and ſerene Weather; whereas, without the Harbours, Bays, and Channels, if the Current ſet a Mile an Hour with a briſk Gale; it will not ſet more than half a Mile in a Calm; and from theſe Obſervations, the Curious may judge of the Strength of the Currents, by the Difference of the Winds.

*Of the* Variation *of the* Magnetic Needle.

By the *Variation*, we mean the Declination of the Magnetic Needle from the true Meridian. If the two Extreams point due North and South, there is no Variation; but, if the North Point of the Needle incline to the Eaſt Side of the true North, then, we ſay, the Variation is Eaſterly: In like manner, if it incline to the Weſt of the true North, we ſay, the Variation is Weſterly. This premiſed, I ſhall ſet down what Variation the Needle has this preſent Year 1718. in the ſeveral Places hereafter mentioned. But, as Opinions concerning the *Cauſe* hereof are various, and that we are certain the Variation itſelf changes and alters, it would be proper for every Perſon to obſerve the Needle's Variation all along during the Courſe of his Voyage.

Note, *The Eaſterly Variation at preſent decreaſes every where in the* Weſt-Indies, *and the Weſterly increaſes.*

*N.B.* "The Imperfection of the preſent "Inſtruments for obſerving the Variation,

" induced Capt. *Middleton*, and the *Editor*,
" to contrive a *New Azimuth Compaſs* for
" that Purpoſe; which was tried at Sea, and
" approved, both on account of its Eaſe
" and Accuracy: It has been ſince impro-
" ved by Capt. *Joſ. Harriſon*, and requires
" but one Perſon to manage in the Time
" of Obſervation; It is likewiſe uſeful in
" finding the Altitude of the Sun or a Star
" without an Horizon; a further Account
" thereof may be ſeen in a little *Tract*, in-
" tituled, *The Deſcription, Uſe and Excel-*
" *lency, of Mr.* SMITH's New Sea-Qua-
drant, *&c.* printed at the End of this *Treatiſe*.

*The firſt Deſcription contains Part of the Bay of* Mexico, *and its Shoals, with the Coaſt of* New Spain, New Andaluzia, *and* New Biſcay.

*Concerning the* Currents *in the firſt Deſcription.*

Within the Harbours, Bays, Streights, and Channels of theſe Parts, as we ſaid before, the *Currents* are ſtronger and weaker, as the Winds happen to be; for, the Currents abate when there is little Wind, as we find by Experience in the Streights, or Channels, of *Bahama*, during calm Weather; and, agreeable to this Obſervation, in the Bay of *Mexico* likewiſe the Currents follow

follow the Force and Direction of the Winds, and the Ranging of the Coaſts; that is to ſay, by the Eaſterly, or *Trade Winds*, the Currents ſet N. W. but by the Northerly, and *Land Winds*, they ſet S. E. and near the Shoars, they run along them, according to the Winds that blow there; which likewiſe occaſion frequent Eddies or counter Currents, eſpecially on thoſe Coaſts that lie nearly Eaſt and Weſt.

*Concerning the* Variation *of the* Compaſs *in the firſt Deſcription.*

In this firſt Deſcription of the Bay of *Mexico*, the *Variation* is Eaſterly; that is to ſay, in that Part of it, among the Shoals of *Campechy*, it is 3° 20′; and when you are out of Soundings 4° 30′; in the middle of this Bay 5° ½ to 6°; and on the Coaſt of *La Vera Cruz* it amounts to 7°.

*The ſecond Deſcription contains another Part of the Bay of* Mexico, *and its Shoals; with the Coaſt of* Yucatan, New Biſcay, *and* Grand Florida.

*Concernirg the* Currents *of the ſecond Deſcription.*

In this Deſcription the very ſame happens as in the former; the Currents taking their Courſe among the Shoals, as the Channels run, cauſing counter Currents alſo near the Shoars, according to the Force and Direction of the Winds which blow there.

*Concerning the* Variation *of the* Compaſs *in the ſecond Deſcription.*

In this Deſcription, within Soundings near Cape *de Catoche* the Variation is five Degrees and a half Eaſterly; and from this Place to the *Negrillo*, it diminiſhes to three Degrees and a half.

*The third Deſcription contains the Coaſt of* Yucatan, Guatemala, Honduras, Nicaragua, *and* Coſta Rica.

*Concerning the* Currents *in the third Deſcription.*

The Courſe that the Currents take in this Deſcription is as follows; with the Eaſterly or *Trade Winds* the Current ſets, in *Coſta Rica* and *Nicaragua*, to the North along the Coaſt, as far as Cape *Gracios a Dios*; and among the Shoals of the ſaid Coaſts there are Eddies or counter Currents; but when you come to the ſaid Cape it runs to the Weſt, into the Gulph of *Honduras*; from thence it turns it's Courſe, and runs to to the N. and N. E. according to the ranging of the Coaſt; and within Sight of Cape *de Catoche* it ſets to the N. E.

With the *Land Winds* the Current runs, on *Coſta Rica*, towards the Eaſt; and on *Coſta Nicaragua*, towards N. E. and among the Shoals according to the Situation and Poſition of the Entrance into them. With the

the *Northerly Winds* there is no Current on theſe Coaſts; (except that between their Iſlands and Shoals a ſmall Current ſets towards the South,) for their Courſe with the N.E. and N.W. Winds tending generally towards N.W. and N.E. the *North Winds* oppoſe and ſtop their Motion.

*Concerning the* Variation *of the* Compaſs *in the third Deſcription.*

The Variation is every where five Degrees Eaſterly in the Places mentioned in this Deſcription.

*The fourth Deſcription contains the* Windward Paſſage, *with it's* Shoals, *the Iſland of* Jamaica, *Part of the Iſland of* Cuba, *the Coaſts of* Cartagena, Terra Firma, Coſta Rica *and* Nicaragua.

*Concerning the* Currents *in the fourth Deſcription.*

The Currents in this Deſcription run as follows; with the Eaſterly or *Trade Winds*, they run to the Weſt along all the Coaſt of *Cartagena* and *Terra Firma*, but in their Courſe we find ſome Alterations, occaſioned by counter Currents; and without, at ſome Diſtance from the ſaid Coaſts, they run towards the N.W. On the Coaſts of *Jamaica* and *Cuba*, they run along Shoar towards the Weſt; and between *Jamaica*, *Hiſpaniola*, and *Cuba*, they run to the N. and N.E. in-

to the Entrance between *Cuba*, and *Hiſpaniola*, and the Iſlands to the North of them.

With the *Land Winds*, the Currents ſet Eaſtwards, on the Coaſt of *Terra Firma*, and *Cartagena*, with many counter Currents in the Bay of *Playon*; and without, at a Diſtance from the ſaid Coaſts, they ſet towards the N. E. and among the Shoals, they run according to the Situation of the Entrance into them; where theſe Winds commonly cauſe many Alterations in the Currents.

With the *Northerly Winds*, (which make a ſmooth Sea) the Currents ſet Southerly, in the Windward Paſſage.

*Concerning the* Variation *in the fourth Deſcription.*

The Variation is Eaſterly in this Deſcription, that is to ſay, between the Coaſts of *Cuba*, *Jamaica* and the *Caimanes*, four, five and ſix Degrees; and riſes and falls within the ſaid Limits, as far as Cape *de Catoche*. On the Coaſt of *Terra Firma* it is three Degrees, but on the Coaſt of *Cartagena* we found no ſenſible Variation of the Needle.

*The fifth Deſcription contains the Coaſts of* Florida, *the Channels, and the Iſlands of* Cuba.

The

The Currents ſet in this Deſcription in the following manner; between *Jamaica* and *Cuba*, they run towards the Weſt; and at Cape *de Cruz*, towards N.W. but on the *Caimanes*, towards the N. and N.E. to fall in with the ſmall Channels of the *Jardines*; and by the Iſle of *Pines* they ſet to the S.W. 'till they come to Cape *de Corrientes*; for from thence to the W.N.W. and N.W. and by the Coaſt of *Apalachy*, they return to the E. and E.S.E. and S.E. at the Edge of the Soundings, near *Tortugas*; and from thence run towards the Eaſt, to fall into the Channels of *Bahama*, according to their Situation. The ſtrongeſt Currents of the Waters are in the Gulph of *Florida*, where they run to the North 'till they come out at the Cape of *Canaveral*, and from thence they ſet towards the N.E. loſing much of their Force and Strength near *Bermudas*. By the North Side of *Cuba* the Current ſets from Cape *Mayſi*, towards the N.W. and thro' the old Streights of *Bahama*, to the W.N.W. with a ſmall Stream; but coming to the Point of *Hicacos*, it runs to the N. and N.E. to fall in with the other Channels, and from the Port of *Cavannas* it runs towards the E. and E.N.E. ſometimes violently into the ſaid Channels,

*Concerning the Currents in the fifth Deſcription.*

Channels; but from *Cavannas* towards the Weſt Part of the Coaſt the Current alters its Courſe and runs to the S. W. to fall in with the little Channels of *St. Iſabel* or *Coloradoes.*

With the *North Winds* and *Land Winds* the Current ſets in the aforeſaid Gulph, and along the Coaſts of *Havannah*, and *Florida*, in the ſame manner as with the *Trade Winds.*

*Of the* Variation *of the* Compaſs *in the fifth Deſcription.*

The Variation is Eaſterly from the Cape of *Corrientes* and *St. Antony* in *Cuba*, to Cape *Catoche* in *Yucatan*, from 3 to 5 Degrees and a half; and on Cape *Florida*, and *Cabeca de las Martires* three Degrees; and through all the *Bahama* Channel to *St. Auguſtin* in *Florida* three, four and five Degrees.

*The ſixth Deſcription contains the Iſlands of the Coaſt of* Caraccas, *the Coaſt of* Venezula, Laguna de Maracaibo, *and* St. Martha, *and ſome Part of the Iſlands of* Hiſpaniola *and* Porto Rico.

*Of the* Currents *in the ſixth Deſcription.*

The Current ſets with the *Trade Winds*, in the Seas of this Deſcription, to the W. and W.N.W. but near Shoar there are counter Currents, though moſt on the Coaſts of *Caraccas.*

With

With the *Land Winds*, they commonly run ſtrong, and more eſpecially on the Coaſt of *St. Martha*, but at the Time of the *North Winds*, the Currents are weak, for the ſaid Winds do not reach theſe Coaſts, where there is commonly fair Weather.

*Of the* Variation *of the* Compaſs *in the ſixth Deſcription.*

The Variation is Eaſterly, upon the aforeſaid Coaſts in the following manner: On thoſe of *Venezula*, which reach from the Cape *de Codera* to the Cape *de St. Roman*, from two to four Degrees and a half; and through all the Coaſt of *St. Martha* from the Cape *de Veja* five, ſix, and ſeven Degrees.

*The ſeventh Deſcription contains the reſt of the Iſlands of the Channel, the Eaſtermoſt Parts of* Cuba, *the Iſland* Hiſpaniola, *that of* Porto Rico, *and the* Virgins.

*Of the* Currents *in the ſeventh Deſcription.*

In this Deſcription the Currents take their Courſe in the following manner: In the Channel between Cape *St. Nicholas* in the Iſland *Hiſpaniola*, and Cape *Mayſi* in the Iſland of *Cuba*, they ſet towards the North; and thoſe that run by Cape *Mayſi*, ſet from thence towards the N.W. and W.N.W. and thoſe that fall in with the South Coaſt of the ſaid Cape,

Cape, run along it towards the Weſt by the Coaſt of *Cuba*; and thoſe that take their Courſe by Cape *St. Nicholas*, on the Land-ſide, run towards the Eaſt to fall in between the Coaſts and the Iſland *Tortuga*; from whence they take their Courſe towards the North and N.W. to fall into the Channels which are made by the Iſlands and Shoals ſituated towards the North of the aforeſaid Iſlands of *Cuba* and *Hiſpaniola*, as it does between *Mayaguana* and *Caicos*, and the reſt of the Iſlands and Shoals of *Jumento*, *Triangulo*, *Miracombas*, *Juma*, *Samana*, &c.

In the Bay of *Piliguao*, the Current runs in Eddies with a ſlow Motion: Along the North and South Coaſts of *Hiſpaniola*, the Current ſets with the *Trade Wind* towards the Weſt, and on the North Coaſt it inclines towards the N.W. to fall in with the Shoals.

On the Eaſtermoſt Part of the ſaid Iſland, they run in counter Currents, and ſo go through their Bays, particularly in the Bay of *Samana*; on the *Virgines* and *Porto Rico*, the Current ſets to the Weſt, with the *Trade Winds*; and along *Paſaie* runs through towards the N.W. and in the Weſtermoſt Part of the ſaid Iſland of *Porto Rico*, the Currents

Currents are changeable, inclining more, as they run to the ſaid Bay of *Samana*, towards W.N.W.

The Variation is Eaſterly from the *Virgines* to *La Aquada* of *Porto Rico*, from four to ſix Degrees, and at *Cabo Roxo* one Degree and a half. In Sight of Cape *de Samana* the Needle inclines to the N.W. one Degree and a half; and in Sight of Cape *Frances* of the Iſland *Hiſpaniola*, the Needle inclines again towards the N.E. four Degrees; and on all the Northerly Coaſt of that Side to that of *Cuba* from four to five Degrees.

*Of the* Variation *of the* Compaſs *in the ſeventh Deſcription.*

*The eighth Deſcription contains the Coaſts of* Carolina, Virginia, *and the Mouth of the Channel to* Bermudas.

In this Deſcription the Current, as ſoon as it comes out of the Gulph of *Florida*, between Cape *Canaveral* and the Channel of *Bahama*, divides into two Parts; one Part ſets away E.N.E. and E, 'till within a little of *Bermudas*; from whence it returns back towards the South, with the *Trade Winds*, 'till it inſenſibly loſes its Strength. The other Part takes its Courſe along the Coaſt of *Carolina* towards the N.N.E. and E.N.E. according

*Of the* Currents *in the eighth Deſcription.*

according as the Coaſt ranges from Point to Point, as far as Cape *Roman*, where it again divides, Part of it taking it's Courſe along the Coaſt of *Virginia*, and the reſt towards the E. and S. E. which at a ſmall Diſtance loſes it's former Strength. Theſe Currents are ſubject to great Alterations by the variable Winds, which blow here, and occaſion many unaccountable counter Currents.

*Of the* Variation *of the* Needle *in the eighth Deſcription.*

The Variation in this Deſcription is Eaſterly in the *Bahama* Channel, Cape *de Canaveral*, and *Florida*, three, four and five Degrees; and on all the Coaſt of *Carolina* to the Cape of *St. Roman* five and ſix Degrees, Weſterly; and on the Coaſt of *Virginia*, and the Ocean to the N. of *Bermudas* from ſeven to ten Degrees, Weſterly.

*The ninth Deſcription contains the* Windward Iſlands, *from that of* Porto Rico, *to that of* La Trinidad, *and* Margarita, *with the Coaſts of* Guayana, *and* Paria.

*Of the* Currents *in the ninth Deſcription.*

In this Deſcription the Waters run in the following manner; in the Ocean, between the *Canary*, and Cape *Verde* Iſlands, and the *Windward*

*Windward* Iſlands, we ſeldom meet with any Currents, except where the *Trade Winds* blow, for there generally we find Currents one hundred and one hundred and fifty Leagues to the Eaſt of the ſaid *Windward* Iſlands, which ſet towards the W.N.W. and coming to thoſe of *St. Bartolome* and *St. Martin*, upon the North Side they follow the ſame Courſe of W.N.W. when diſtant from the Coaſt, but when near *Porto Rico*, and the *Virgines* they run to the Weſt along the Shore.

Without the Iſlands *de la Trinidad*, the Currents run towards the N.W. and here their Force increaſes by the Waters coming from the great Rivers of the Coaſts of *Cayana*, and *Guayana*; and arriving to the Eaſtward of the ſaid Iſlands, run into their Channels, but on the Weſt of the ſaid Iſlands they reaſſume their Courſe of W.N.W. and of N.W. to fall in with *Paſaje* and the *Virgines*; and between *la Trinidad* and the Coaſt they run along the Shore with Violence, occaſioned by the great River of *Oroonoko*, though they are appeaſed by the Tides, which run through to *Labocade los Dragos*, and from thence towards N.W. and

W.

W.N.W. to the ſmall Channels *de los Teſtigos y Frailes*, and the Iſland *Margarita*, where, and on the Coaſt of *Paria* they run regularly; but here 'tis neceſſary to keep *a good Look-out*, as the Seamen term it.

*Of the* Variation *of the* Needle *in the ninth Deſcription.*

In this Deſcription the Variation is Eaſterly, *viz.* In the Ocean, from two hundred Leagues to the Weſt of the *Canaries*, to two hundred Leagues to the Eaſt of the *Windward* Iſlands, there is no ſenſible Variation of the Needle; and within two hundred Leagues to the Eaſt of the *Windward* Iſlands, it begins to vary towards the Eaſt, from thence to the ſaid Iſlands, one, two and three Degrees; and from the Iſland of *Trinidad*, to *la Margarita*, and as far as Cape *de Codera*, ſcarcely one Degree.

*The tenth Deſcription contains the* Caribbee Iſlands, *with the Coaſt of* La Guayana, *and* la Cayana, *as far as the* Equinoctial.

*Of the* Currents *in the tenth Deſcription.*

In almoſt all this Deſcription the Currents ſet towards the N.W. W.N.W. and W. according as the Coaſts range; and the nearer it is to the Shoar the ſtronger they run, on account

Account of the Waters iſſuing from the Rivers, which are many and great.

The Variation of the Needle in theſe Seas is very ſmall, the greateſt Inclination to the N.E. being two Degrees near the Shore, and but one Degree at ſome Diſtance from it; but we find a greater Variation on all the Coaſt of *Brazil*.

*Of the* Variation *of the Compaſs in the tenth Deſcription.*

I A P-

# APPENDIX.

*A* TABLE *made in the manner of an* ALPHABETT, *for the easier findinge of the Streates, and chiefest Places portraited in the Drafte of* Portabell, *beinge in the* West-Indies, *standing in tenne Degrees, which was taken by Captaine* William Parker, *of* Plymouth, *Gentleman, the seaventh Daye of* Februarie 1601, *being there Admyrall*; Robert Rawlin, *Vice Admyrall*, Edward Gyles, *and* Philipp Warde, *Gentlemen, Captaines by Land*; *with Captaine* Fugars, *Captaine* Lorimer, *and Captaine* Ashley, *and dyvers others Gentlemen and Souldiors, Marryners and Saylors, to the number of* 150, *which were landed, whereof* 20 *were hurt with the Bullett, and one slain in wynnyng of a Piece of Ordinaunce from the Enemye.*

A. THE *Bastimentoes, (about six Leagues from* Porto Bello) between which and the Mayne I went with my two Pynnaces and two Shallops being very dangerous, by Reason of

of many Sholes beinge there and it beinge Night.

B. An Iſland, called *Cagathoe*.

C. The Place where my Shippes roade, beinge the Rock where Sir *Francis Drake* his Coffin was throwne over boarde.

D. The Eaſtermoſt Forte, called Saint *Phillippes Forte*, wherein were thirtie five Pieces of braſſe Ordinaunce, beſides fifty Souldiers which keepe the Forte continually, hauing a Howſe of Lodging near unto it.

E. The Place where I anchored with my Pynnaces, hauing my Shalloppes halde upp cloſe by there Sydes, when the Forte hayled me, and commaunded me to anchor, which I did.

F. A Houſe built upon a Friggot and a ſmall Bay goinge in faſt by it.

G. The Weſtermoſt Forte, called Saint *Diagoes Fort*, hauing thirtie Souldiors in itt, and five Pieces of Ordinaunce, the which they caryed over to the great Fort ſauinge one braſſe Piece, which they were bringinge towards the Towne to playe upon my Men as they paſt to and fro to our Boats, againſt whom I ſent Captaine *Gyles*

who won the ſame from them but with the Loſſe of one Man.

H. One other Fort or Ploatforme, wherein were no Ordinaunce.

I. A Towne, called the *Triana*, where I landed with my two Shalloppes hauing with me no more but 28 or 30 Men, with whom I marched from thence to the great Towne, the which *Triana* I cauſed to be burnt.

K. A Fort which they are now a buildinge upon a Hill, hauinge cloſe by it a Ryver which cometh downe from the Mountaynes, and runneth foorthe into the mayne Ryver, which Fort will both commaunde the Towne and the Ryver.

L. The Key where the two Pynnaces landed the reſt of my Men, att the greate Towne, an hower after my landing.

M. A great Storehouſe, with Dwellings in itt, which Storehouſe was full of greate Tymber for the buildinge of Shippes.

N. The Place where two Frigottes road, the one of them hauinge in hir three Pieces of Ordinaunce, the which I likewiſe tooke and brought from thence with me, with the which Ordinaunce we beat upon the Enemye

Enemye marchinge to us from the Weſter Fort.

O. The Kinge's Howſe, wherein were two Pieces of Braſſe mounted upon two Fielde Carriages and two hundred and fifty Souldiors belonginge to the Howſe and the Towne, beſides a Companye of Townſmen which do uſuallie keepe theire Court of Guarde in the Kinges Howſe, which Howſe when the Kinges Gallyons come thither is full of Treaſure, and at no Tyme ells, in which Howſe at our firſt cominge to Towne, our Leiuetenaunte, *Samuel Barnett*, was ſhotte on the Syde of his Head and through his Eare, and Captaine *Gyles* coming to ſeconde him was likewiſe ſhott over the Breaſte and throughe his Arme.

P. The Market Place, or Courte of Guarde.

Q. Certaine verie fair Howſen, wherein dwelt the Sarjeant Major, with other chiefe Commaunders, at which Place we kept our Court of Guarde.

R. A Rowe of Howſen, wherein dwelt dyuers Merchants.

S. The Brydge, with a great Ryver runninge under it, which cometh from the Mountaynes and runneth foorth into the Ryver.

T. The Alkayes Houſe, or Priſon, who fled the Town, hauinge a verye fayre Chayne of Gold about his Neck.

U. The Churche, called *Saint Maryes* Churche.

X. The Streat where *Petro Malendus* gathered 60 Souldiors together, and was comminge towards the Brydge for to encounter with me, I hauinge then not above 8 or 9 Men with me for to withſtand them, but God did proſper our Proceedings mightelie, for the firſt two Shott which went from us ſhot *Malendus* through his Targett, and went throughe both his Armes, and the other Shott hurted the Corporall of the Fielde, whereupon they all retired to their Houſe which they made good untill it was almoſt daie; againſt whom I ſent Captayne *Ward*, with ſome Souldiors, who entered the Houſe killing diuers of them, and wounded *Malendus* in eight Places more, himſelf being ſhot through both his Thighes in entring, and ſome of his Men hurt. My ſelf, with others, went to the Kinges Houſe, wherein were many of the King's Souldiors, who would not come to any Compoſition, but ſtoutlie defended the ſame againſt

Captaine

Captaine *Gyles* and our Leiuetenaunte, who in the Ende ſlewe dyuers of them, and hurt many others, taking the Kinges Scriuana Priſoner, which Scriuana, beinge a Man of good accompte, I ſett at Libertie with the reſt after my Departure from *Porta Bell.* This Fighte endured for the Space of fower or fyve Howres.

Y. The Way that leadeth to *Pennemau*, being full of all Sorts of Artificers, at the End whereof we made a Barracathoe, where Captayne *Gyles* ſtood with another Court of Guarde beinge dyvers and ſundrie Times aſſaulted by the Enemie.

Z. The Houſe where *Petro Malendus* dwelt beinge chiefe Captaine of the Towne.

A.A. A Streat full of all Sorts of Artificers, with two other Streates or Ways leading to the Weſtermoſt Fortes.

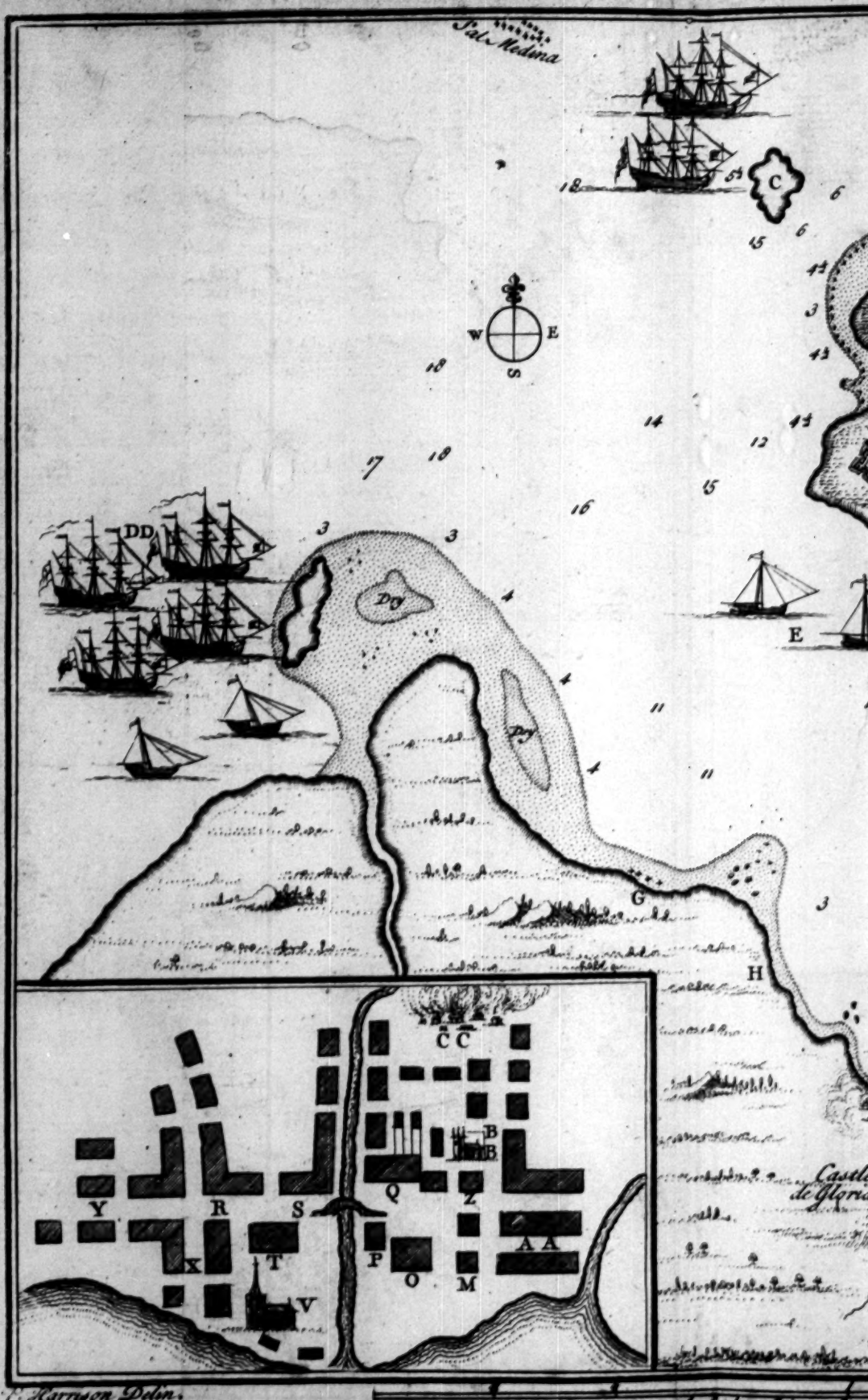
B.B. Another Church and a Streat beinge full of all Sorts of Artificers.

C.C. Certayne out Houſen wherein ther Neagors dwelt, the which I cauſed to be burnt, and att the Beginning of the Night I embarked my Men and ſett ſaile to departe, but in going out I was ſhot in att the Elbowe, and out at the Wreſt with a Muſket-ſhot which came from the Weſter

Shoare, whereof there was many ſhott over us, beſides 28 great Shott from the Eaſter Forte which did indaunger us often, but God ſo wrought for us that we ſafely gott forthe againe contrarie to the Expectation of our Enemyes, who made an Accompte to ſinck us in going forthe.

D. D. The Place where I ſtay'd after my Departure from *Portabell*, with both the Frigottes, my two Pynnaces and Shalloppes, untill my Viceadmyrall brought my Shippes thither; where I ſett the Scriuana with the reſt aſhore; and the next Daye beinge the ninthe of *Februarie*, I ſett ſayle and ſtood off to Sea.

*FINIS.*

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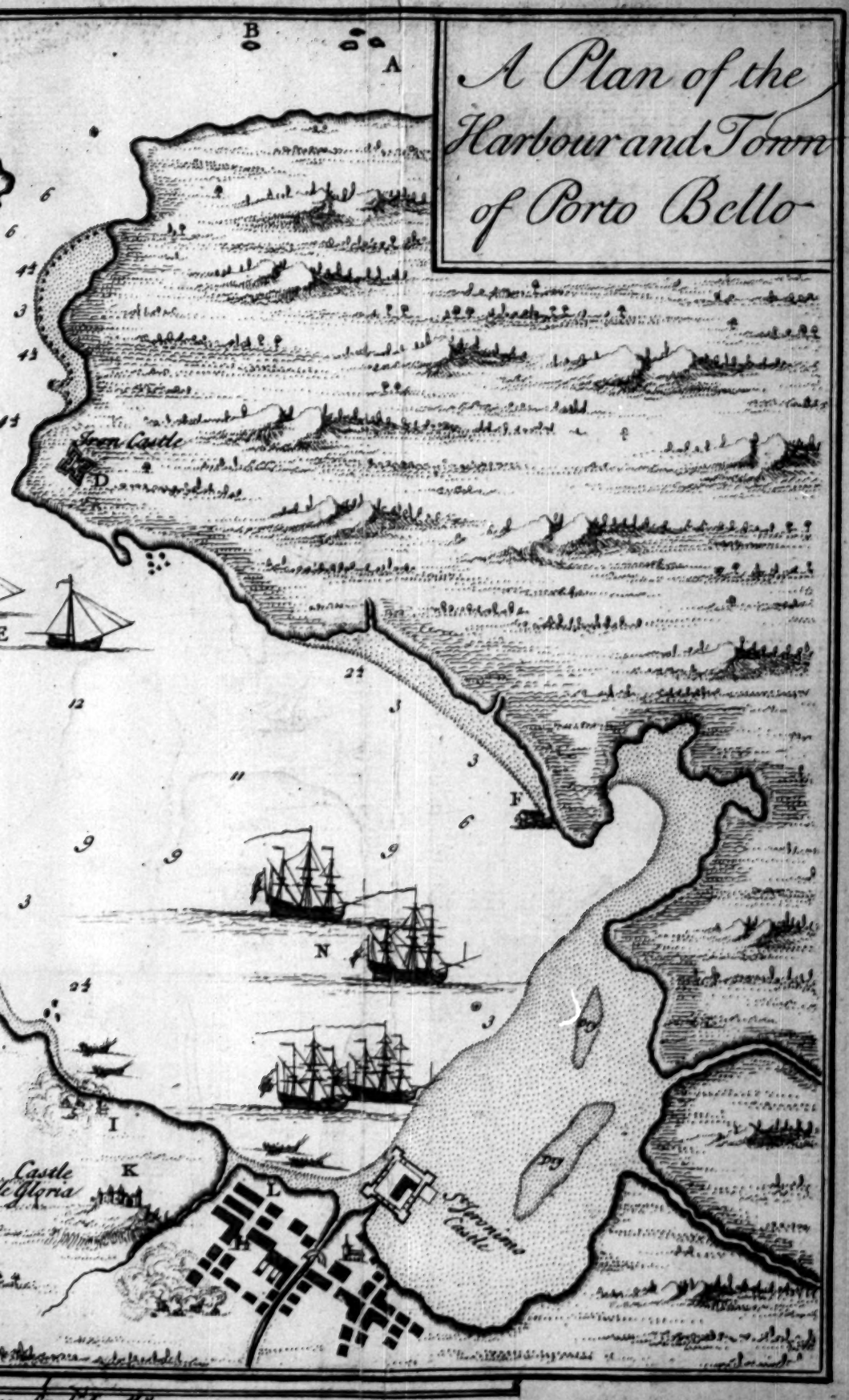
A Scale of two Eng


A Plan of the Harbour and Town of Porto Bello
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